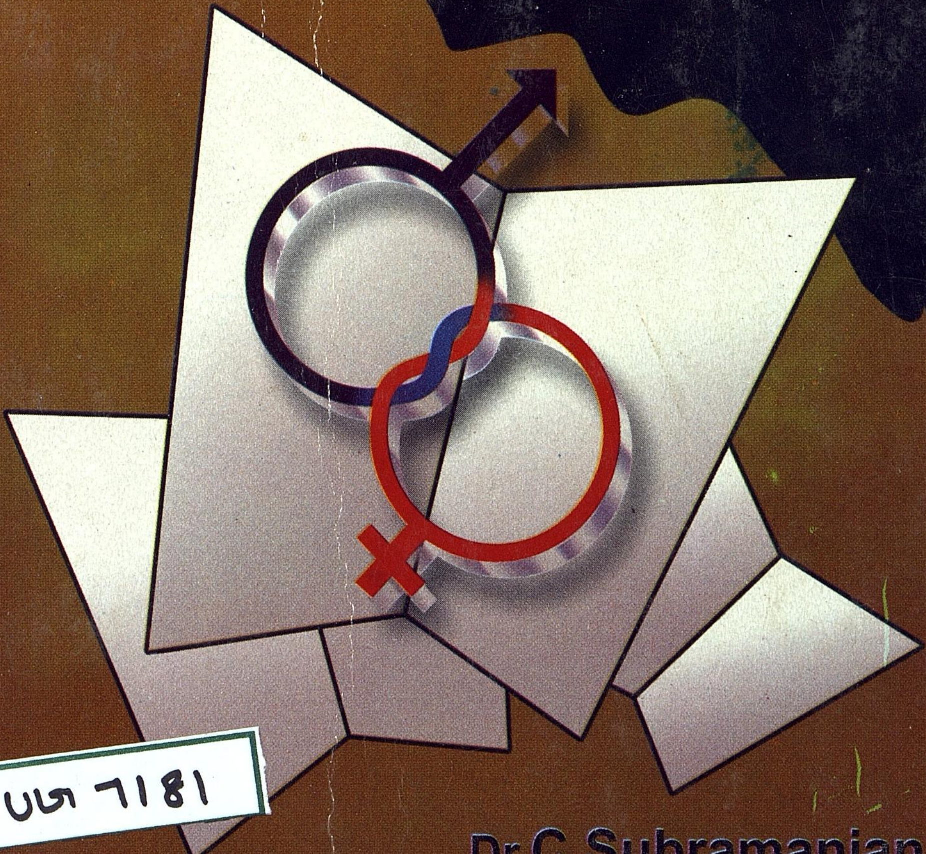
REPRODUCTIVE HEALTH AND SEX EDUCATION



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REPRODUCTIVE HEALTH AND SEX EDUCATION

Collection of Research Papers from
U.G.C. Seminar - March, 2007
Tamil University

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FOREWORD

I am happy to compliment this anthology on 'Reproductive Health and Sex Education' which has 18 selected research articles. I feel that the theme of the volume is of extreme relevance and it is necessary for the society to tune-up the ethical aspects. As the adolescents become sexually active, they face serious healthrisks due to little factual information and lack of guidance about sexual responsibility. Today, adolescents are facing high risk of unwanted pregnancies and Sexually Transmitted Diseases. The rate of its increase is alarming. So the concept of Reproductive Care and Sex Education is not new but its importance in the present days has grown multidimensionally because of Population Explosion and various related problems. The task of intervention is not going to be an easy.

Though several sporadic studies have been made in the past on various aspects of this gigantic problem, no organized attempt was made to have a realistic look at the issues involved and to find effective solutions for the problems faced

by the youth. This volume under five sections broadly covers the aspects of Sex myth prevailing among college students, Perspective of adolescent and youth sexuality, Need of Sex education, Reproductive Health Status of Indian Women, Reproductive Behaviour of Rural Women, Practice of Breast feeding, Population Explosion, Importance of Nutrition for Pregnancy, Prevention of STI, HIV/AIDS, and Social Stigma faced by HIV/AIDS affected children. The discussions on these aspects and the recommendations emanated from the deliberations of the authors are of high relevance to the youth in India.

This volume makes available to the Policy makers and Government functionaries, a wealth of data and information as well as expert opinions on the diverse issues involved.

I am confident that this book is meant to provide immense value to Research scholars, Educationists and Field functionaries in the field of Population studies and Social Sciences.

I appreciate the sincere efforts of Dr.C.Subramanian, Professor and Head, Dept. of Social Sciences, Tamil University, Thanjavur for having edited this informative volume.

Dr.M.Rajendiran

Dr.C. SUBIRAMANIAN,
Professor & Head
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PREFACE

Young people face serious health hazards in modern times. Adolescent girls, in particular, are likely to suffer sexual abuse, violence and rape from which they need protection. A large number of adolescent boys and girls in the age group of 16-24 years start sex much before marriage in urban areas and also due to early marriage in rural areas. Virtually all these adolescents are in need of education, information, counseling and health services with regard to their reproductive health, sexuality and responsible parenthood.

Besides most unguarded adolescents are susceptible to several risks like Sexually Transmitted Infections (STI) including infection with Human Immuno Deficiency (HIV) resulting in AIDS, risks of pregnancy often leading to unsafe abortions and its complications, too early pregnancy and child-bearing and consequent illness, sexual coercion, violence and abuse. These can endanger not only their physical health but also create long term emotional, economic and social impoverishments and losses. It is essential that these

adolescents are to be protected from unwanted sex, early child bearing, unwanted pregnancies, unsafe abortions, STD and HIV/AIDS.

Similarly, today the world is facing the problem of population growth which lead to most of the natural problems and as well the man-made hazards including resource depletion, improper hygienic conditions, pollution, malnutrition, ill-health, illiteracy, unemployment, underemployment, poverty, over crowd and other socio-economic crises.

Hence a national seminar was organised in Tamil University, Thanjavur on 20.03.2007 in which Academics, Researchers and Professionals participated and presented the research papers with regard to the important issues mentioned above. The main recommendations of the seminar are; 1. To introduce sex education from std IX onwards to develop awareness among adolescents, 2. To start certificate course on Reproductive Health and Sex Education and, 3. To make efforts to integrate the contents of Population Education, and Health Education at High School/Collegiate level.

This book entitled 'Reproductive Health and Sex Education' is the outcome of the above seminar. It has 18 selected papers. This book is divided into five sections, viz.,

1. Sex Education for youth
2. Reproductive and Child Health care
3. Population Growth and Problems
4. Nutrition and Health status and
5. Prevention of STI, HIV/AIDS

I express my gratitude to the University Grants Commission, New Delhi for their finacial support to the organization of the seminar as well as the publication of this book.

I am more grateful to Dr.M.Rajendiran, Vice - Chancellor, Tamil University, Thanjavur for having granted permission not only to bringout but also to give foreword to the volume

I extend my thanks to Dr.A.Karthikeyan, Registrar i/c, Tamil University, Thanjavur for his encouragement to publish the articles.

I specially place on record my sincere thanks to Dr.Palani Arangasamy, former Professor of English and Director of Publication, Tamil University for having gone through and effected necessary correction in the entire volume and to shape the volume in better form and style.

I am also thankful to all contributing authors, Staff and Students (A. Thirumagal Rajam, P. Rajakala) of the Dept. of Social Sciences, Tamil University for extending their support in bringing out the volume.

Dr. C.Subramanian,
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SECTION - I

SEX EDUCATION FOR YOUTH

SEX MYTH AMONG COLLEGE STUDENTS - AN EMPIRICAL STUDY AMONG UNDERGRADUATES AND POSTGRADUATES

Dr. A. THOMAS WILLIAM
R. SUGANYA

In a culturally dominant India, misconceptions otherwise called myths are not uncommon. Sex related issuse are seldom focused or discussed by appropriate and informed agencies. Various sources either available or accessible are neither scientific nor self-contained. The information so received is neither tested nor proved. Hence lot of misconceptions or myths prevailing among the youth population is evidently focused by researchers in the field. There is a greater need to make an individual to be aware of the MYTH. Serious attempts are necessary to inculcate the youth with the fact against the myth. There are fifteen such myths identified and tested among the student population at the higher education level.

CULTURAL BARRIERS

Though India is culturally and religiously dominant in every respect it has its own dynamism in the field of sex education. There are barriers for parents and teenagers to talk and discuss sex. Hence there is a lot of misconception prevailing on sex related issues (Abel, 1997)

It is to be kept in mind that the role of parents and teachers in providing sex related information is the need of the hour. Taking into account the changing sociocultural situations, the influence of mass media, the alarming statistics on AIDS, etc., it has become essential to do away with such misconceptions. There were various strategies required to educate against myth among the youth. Some of the techniques that could be employed are:

- Openness in communication,
- Parental readiness to discuss the issues,
- Beginning discussions at an early stage,
- Positive messages,
- Sex education,
- Research
- Training

There are various customs, traditions, habits and practices in the community which are detrimental to have a clear and scientific understanding on sex issues. Many of the health practices and beliefs are indirectly responsible for building misconceptions. Hence community exerts strong influence over the members with regard to these customs and practices and they cannot be erased from the minds of the people. Under these circumstances it is necessary to give a basic knowledge in the form of awareness programmes to eradicate myth on sex among youth.

OBJECTIVES

1. To find out the level of myth on sexuality among the college youth.
2. To estimate whether the youth are able to differentiate between myths and facts on sexuality.

METHODOLOGY

A standardized questionnaire is adopted to collect data from youth. The questionnaire consists of 15 myths. The major areas of myth are confining to sexual relations, health aspects of sex, motivation towards sex, pregnancy, male and female differences and orgasm. The tool is pre-tested and the information is collected from the randomly selected undergraduates and post graduates of a college.

ANALYSIS & OBSERVATIONS

Among the fifteen myths included in the questionnaire the following are identified as myth by the students.

Table No - 1
Identified by respondents' as myth

S. No.	Myth	F	%	Rank
1	Sexual intercourse during pregnancy harms the health of women	37	78.72	1.0
2	Semen is the essence of life; its loss damages one's health	34	72.34	2.0
3	Most men lose their sexual drive around the age of 50	32	68.08	3.5
4	Men always want and are always ready to have sex	32	68.08	3.5

The above table illustrates about the most important myths prevailing among the respondents. A clear picture is seen that, 78.72% of the respondents believe in the myth, "Sexual intercouse during pregnancy harms the health of women" whereas 72.34% of the respondents have not identi-

fied, "Semen is the essence of life; its loss damages one's health" as a myth. Other common myths found among 68.08% of the respondents are, "Most men lose their sexual drive around the age of 50" and "Men always want and are always ready to have sex".

Table No - 2

The following are identified as Facts by the students

S. No.	Fact	F	%	Rank
1	Masturbation is restricted almost exclusively to males	46	97.87	1.0
2	There is something wrong with a person who hasn't had sex by the time he is 18	45	95.74	2.0
3	Nocturnal Emissions is a sign of STD	40	85.10	3.0
4	Men have stronger sex drive and are more interested in sex than females.	36	76.59	4.5

This table amplifies the important myths which have been indentified by the respondents as fact. On the whole 97.87% of the respondents strongly believe, "Masturbation is restricted almost exclusively to males" is a myth. There are 95.74% of the respondents have identified that, "There is something wrong with a person who hasn't had sex by the time he is 18" as a myth shows that there is an appreciable amount of awareness among youth.

There are also 85.10% of them who felt that "Nocturnal Emissions is a sign of STD" is a myth. "Men have stronger sex drive and are more interested in sex than females" and "All teenagers are having sexual intercourse these days" is identified as myth by 76.59% of the respondents.

MAJOR OBSERVATIONS

★ The mean age of the respondents is 23.5 and all are male.

★ Their educational qualification ranges from Under graduation to Post graduation. Most of them belong to Nuclear family and all the respondents are unmarried.

★ In the areas like, i) All teengers are having sexual intercourse these days, ii) Love means sex and, iii) Something wrong if not had sex before 18-the students have clear knowledge which shows that they are well informed.

★ On the contrary it is interesting to observe that the loss of semen damages one's health is still a myth among the students.

★ It is also observed that the college students still wrongly believe that on attaining the age of 50 most men lose their sexual drive.

★ The respondents opined that males have more strength and interest than their counterparts which is a myth to be seriously dealt with.

★ Another interesting myth among the students is that sexual intercourse during pregnancy affects the health of women.

CONCLUSION

Though the educated population was aware of few myths relating to their knowledge on 'Love and sex, sex relationship befor the age of 18 years and all teenagers have sex relations nowadays' - seems to be encouraging; the awareness level is estimated to be low taking into consideration the level of awareness on other myths. Generally it has been observed that most of the myths are not identified as myths by these college youths. It requires serious interventions to be taken by the parents, teachers, institutions and the development organizations. It is to be suggested that myths like these may lead the youth indulge in inappropriate decisions with regard to their sexual life and hence these myths need to be corrected through proper sex education and to guide them by explaining the reality. It is also to be observed that the level of awareness could still be low if such studies are to be conducted among the non-educated population. Finally this research paves way for future researches with rural populations, girls and other productive groups.

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PERSPECTIVES OF ADOLESCENCE SEXUALITY

Dr. J. GODWIN PREM SINGH
K. PARTHASARATHY

INTRODUCTION

Adolescents comprise 20 per cent of the global population, 85 per cent of whom live in the developing countries. Further more the adolescent population in developing countries is expanding, with the number of urban youth growing to a projected 600 per cent between 1970 and 2025. Twenty one per cent (210 million) of India's population is in the age group of 10-19 years (Eggleston, 2000). "Adolescence" refers to the development period between the age group of 10-19 years. Adolescence is a period of deep emotional changes. The health-related experiences, attitudes and behavior of this adolescence are intimately linked to their social, educational and economic aspiration and options, which will have a strong impact on future Indian society (Challbe, 2002). Adolescence is also the period of experimentation which exposes the youth to health risks through drugs, alcohol, tobacco use, irresponsible sexual behaviour etc.. (Gay Ingersal, 1999). "Sexuality" refers to the total sexual make up of an individual, covering the physical aspects, attitutde, values, experience and preferences. Frequently, sexuality presents, the first challenge to healthy growth and development during adolescence (Cum Opin Obstet Gynecol, 2002)

According to an estimate by UNAIDS, by the end of 1999, there were already 33.6 million people world wide with HIV infection. Altogether more than four million children under the age of 15 years and more than 10 million young people (15-24 years) have been infected with HIV since the epidemic began (Elian and Gebhard, 1999). Unfortunately the needs of adolescents have not been addressed by the health system. Only recently the reproductive child health programme has included all males and adolescent females as target groups. Hence efforts were taken to conduct a study on sexual behaviour and sexuality among adolescent boys. The study also aims to throw light on their awareness regarding STI,HIV and AIDS (McCrery, 1995).

ADOLESCENTS AND AIDS

It has been estimated that at the end of 2001, approximately 40 million people worldwide were living with HIV/AIDS, of which, a total of 6.4 million people belonged to the Asian region (UNAIDS, 2001). Young people bear a special burden in the HIV/AIDS pandemic. Nearly one third of those currently living with HIV/AIDS are aged from 15 to 24. Adolescents are more vulnerable than adults to unplanned pregnancies, STI's and HIV/AIDS (Hettiarachchy, 2001). It has been observed that when adolescents become sexually active, they tend to have multiple partners and use condoms and other contraceptives inconsistently. Furthermore, younger women are more vulnerable to forced sex and sex in exchange for gifts and money, with increased risks of contracting STIs, including HIV/AIDS. It has been found that while women, in general, are more likely than men to be infected with HIV during unprotected vaginal intercouse, the prevalence of HIV infection among adolescent girls is strikingly high (Tamanag,

2001). The adolescents in need of special protection, including street children, sexually exploited children, including those engaged in prostitution, and migrant children, face additional risks (Nassir, 2000).

SOURCES OF KNOWLEDGE ON SEXUALITY

The growing interest in sex makes adolescent boys and girls seek more and more information about it and they take advantage of what ever sources of information that is available. Parents are the part persons to impact knowledge on sex to children. But parents are either ill equipped by lack of correct knowledge themselves or they are hampered by discomfort over discussing sex with their children (Manju, 2000). The companions are the chief source of sex information for most adolescents. While most others derive it from friends, the famous psychologist says that the information thus one got is often half baked, grossly wrong and replete with myths and superstitious (Parthasarathy, 2007). The sexual knowledge derived from television according to sociologists is the classic tale of a blind man feeling elephant and trying to wonder what it is. A young person may see different scenes with sexual connotation but unable to link this information. He may believe it and this may lead to dysfunctions and perversions (Rajanir, 1998)

SEX EDUCATION

The sex education should include the three R's Responsibility, Respect and Restraint. Young people must understand that the misuse of our sexuality has the risk of direct consequences. An unwanted pregnancy or venereal disease may have ramifications which last long. After the fun and excitement of a sexual encounter are over we have to own

responsibility for realising our sexuality wisely (Eggleston, 2000). Young people should respect the sexual rights of others. No one should be coerced into sexual behaviour that she or he does not want. A delusion to be sexually active may be terribly difficult to undo and may lead to feelings of guilt and lower self esteem (Callbe, 2002). Educationalists too wish to introduce sex education in the shcool and college curriculum. A survey conducted by State Council for Educational Research and Training has revealed that there is immense public support for introduction of sex education in schools. Informal sex education according to him can be started at any time when the child's curiosity makes him receptive to conception inputs. The teenage pregnancies and abortions would decline dramatically, if sex education is introduced in schools (Rajanir, 1998). Students should be taught of Planned Parenthood, anatomy, refraction and misconceptions in a young mind. The aim should to be preparing for adulthood. So that they avoid sex related problems. The growing publicity of the dangers of AIDS has recompiled the need of sex education. However a successful sex education programme must fit the community within which it occurs. Incurable sex education curricula have died before they begun simply because the implementers failed to get community support. The educational programme should be developed taking in to consideration the difference attitudes with in the community and its culture (Nassir, 2000)

SEX EDUCATION WITHIN THE FAMILY AND COMMUNITY

In many societies, the family and immediate community traditionally provide young people with information and guidance about sex and sexuality. In some societies, through-

out the continent of Africa, the provision of information about sex used to be formalized as part of initiation into adult roles. Elsewhere, the provision of information about sex through the family has been more informal, while in some cultures open discussion of sexual matters between parents and children may actually be rare (Parthasarathy, 2007). It is important to recongnize these variations in how sex education takes place within the family and community, and how they affect the sexual beliefs and behaviour of young people. In many parts of the developing world, recent and rapid urbanization and migration have meant that families and community networks have become more widely dispersed. This may have impacted on sexual socialization and education as well as on the sexual behaviour and sexuality of young people (Elias and Gebhard, 1999).

OBJECTIVES OF THE STUDY

1. To study the socio-demographic characteristics of the respondents.

2. To ascertain the sexual behaviour of adolescents.

3. To know about the level of awareness about HIV/AIDS among the respondents.

4. To extent the awareness on sex education among the adolescents.

5. To find out the source of information on sex from which the adolescents understand.

6. To find out the association between the socio-demographic characteristics of the respondents with regard to sexual behaviour.

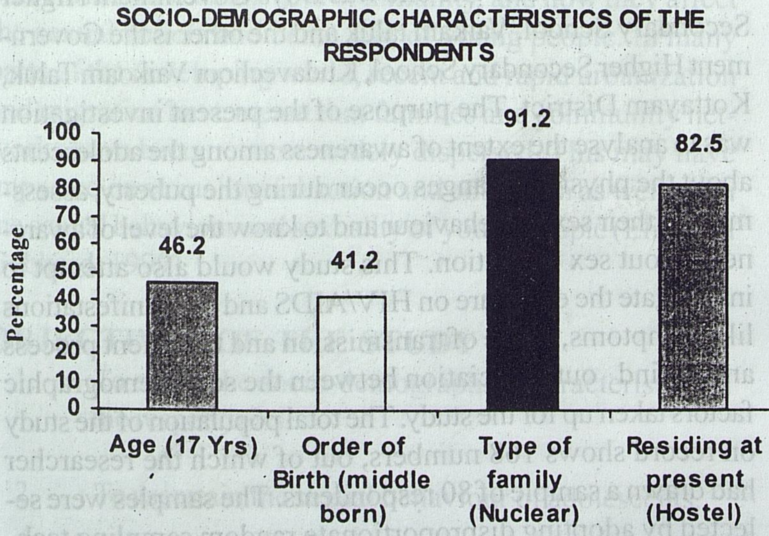
METHODS AND MATERIALS

The present study was conducted in two government Higher Secondary schools at Vaikom Taluk, Kottayam District of Kerala State. The one was Boys Government Higher Secondary School, Vaikam taluk and the other is the Government Higher Secondary School, Kudavechoor Vaikoam Taluk, Kottayam District. The purpose of the present investigation was to analyse the extent of awareness among the adolescents about the physical changes occur during the puberty, assessment of their sexual behaviour and to know the level of awareness about sex education. This study would also attempt to investigate the exposure on HIV/AIDS and its manifestations like symptoms, mode of transmission and treatment process and to find out association between the sociodemographic factors taken up for the study. The total population of the study on record shows 168 numbers, out of which the researcher had drawn a sample of 80 respondents. The samples were selected by adopting disproportionate random sampling technique. The data on the subject were collected with the help of structured interview schedule prepared by the researchers. This study was descriptive in nature as it descries the various characteristics and factors leading to the awareness on sex-education among the adolescents. The data were subjected to statistical analyses by using 'X^2' test and to find out association between the personal profile of the respondents and selected dependent key variables.

RESULTS AND DISCUSSION

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

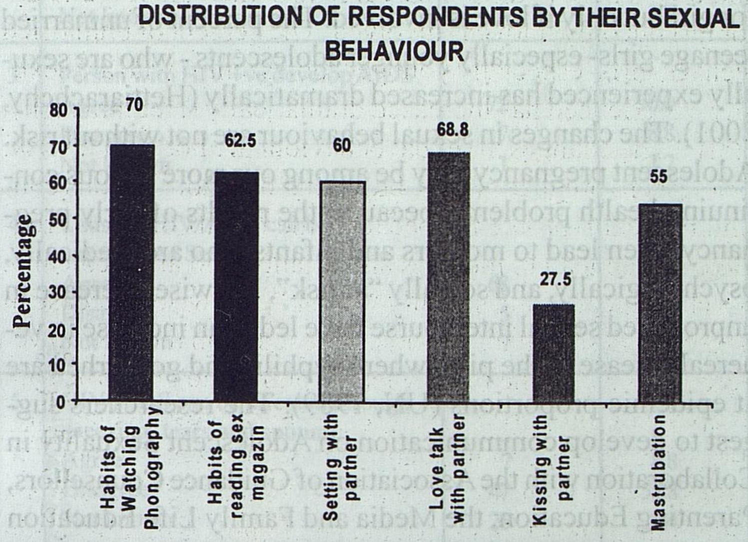
Fig. 1 : Distribution of respondents by their perosonal profile



The fig.1 bar diagram shows that nearly half of respondents belong to the age group of 17 years and 41% of the respondents were born in a middle order. Most of them were staying in school hostel and majority of them live in Nuclear family system.

SEXUAL BEHAVIOUR

Fig. 2 : Distribution of the respondents by their sexual behaviour



The fig.2 bar diagram explicit that majority of the respondents have habits of watching pornographic (70%), reading sex related magazines (62.%), would like to setting with partner (60%) and involving love talk with partner (68.8%). A few percentage of the respondents would like to kiss their partner (27.5%) often and half of the respondents have habits of masturbation (55%). This table suggest the fact that the post twenty years have witnessed a steady and significant chage in sexual attitude among teens and young adults. Both male and female are considerably more liberal in their views of what is acceptable sexual behaviour. Those attitudes become more liberal as the adolescent get older and reach young adulthood. As a result, much of the traditional sexual double standard, which approved and encouraged premarital sexual

intercourse for boys but disapproved of the same behaviour for girls, has lessened (Parthasarathy, 2007). However, the double standards has not totally disappeared, although some adolescent believe the premarital sexual intercourse is all right for girl but only if love is involved. The percent of unmarried teenage girls- especially younger adolescents - who are sexually experienced has increased dramatically (Hettiarachchy, 2001). The changes in sexual behaviour are not without risk. Adolescent pregnancy may be among our more serious continuing health problems, because the results of early pregnancy often lead to mothers and infants who are medically, psychologically, and socially "at risk", likewise, increase in unprotected sexual intercourse have led to an increase in venereal disease to the pilot where syphilis and gonorrhea are at epidemic proportions (UN, 1989). The researchers suggest to develop communication on Adolescent Sexuality in Collaboration with the Association of Guidance Counsellors, Parenting Education, the Media and Family Life Education Specialists to train adults to be more effective in counselling and communicating with adolescents about sexual activity.

Table - 1

Distribution of respondents by their awareness about HIV/ AIDS

S. No.	Awareness about HIV/AIDS	Respondents (N:80)	Percentage
1	Cause of AIDS is a HIV virus		
	Agree	76	95.0
	Disagree	4	5.0

2	HIV/AIDS affect body immunity system		
	Agree	75	93.8
	Disagree	2	2.4
	Not known	3	3.8
3	Person with HIV +ve develop AIDS		
	Agree	72	90.0
	Disagree	7	8.8
	Not known	1	1.2
4	Cause of HIV/AIDS can be unprotected Sex		
	Agree	68	85.0
	Disagree	5	6.2
	Not known	7	8.8
5	HIV/AIDS can be infected through sneezing, tears and sputum		
	Agree	7	8.8
	Disagree	47	58.8
	Not known	26	32.4
6	HIV/AIDS can be infected through unsterlized syringe		
	Agree	75	93.8
	Disagree	3	3.8
	Not known	2	2.4
7	HIV/AIDS is treatable		
	Agree	8	10.0
	Disagree	71	88.8
	Not known	1	1.2
8	Infection of HIV/AIDS Preventable		
	Agree	67	83.8
	Disagree	13	16.2

The table -1 explicit that on awareness about routes of transmission of HIV/AIDS, majority of the respondents stated that multiple sexual partners as the cause of transmission of HIV/AIDS and also of infected blood & needles. Very few percentage of the respondents was unaware of any route of transmission of HIV/AIDS. These findings indicated that without any intervention like health education or special awareness programme, knowledge about HIV/AIDS and its major routes of transmission among the school going adolescents is quite high. This may be attributed to exposure of mass media. In particular awareness about prevention of HIV/AIDS, majority of the respondents said that HIV/AIDS could be prevented, if one avoids multiple sexual partners and commercial sex workers. Half of the respondents opined that HIV/AIDS could be prevented by not having multiple sexual partners and by using disposable needles, or properly sterilized needles along with avoiding infected blood and knew about the use of condoms during sexual act as a mode of protection. Very few percentage of the respondents was totally unaware about any preventive measures. This study suggests that to enhance awareness among the adolescents, conducting a social awareness programme on HIV/AIDs, especially symptoms, on mode of infection and on treatment process of HIV/AIDS is necessary.

Table - 2
Distribution of respondents by their awareness about sex education

S. No.	Awareness about sex education	Respondents (N:80)	Percentage
1	Read books giving information on sex		
	Yes	50	62.5
	No	30	17.5
2	Wish to know sex education		
	Yes	68	85.0
	No	12	15.0
3	Subjects must include sex education programme (n:68)		
	Physical - psychological changes	44	64.70
	Growth of sex organs	12	17.65
	Reproductive Health	12	17.65
4	Sex education as a programme		
	Agree	73	91.2
	Do not agree	7	8.8
5	Your preference of order is receiving facts about Sex Education		
	Doctor	20	25.00
	Counsellor	43	53.75
	Teacher	17	21.25
6	Which level sex education need to be given		
	High School	54	67.5
	Higher Secondary School	12	15.0
	College	14	17.5

The table-2 revealed that majority of the respondents has the habit of reading sex magazine to know about the variety of sex. Most of them were interested in knowing about the growth of sex organs, physical-psychological changes during the adolescence period. Further, most of the respondents agreed that sex education is a programme. This table concluded that Sex health education, broadly defined, any instruction in the processes and consequences of sexual activity, ordinarily given to children and adolescents (Nassir, 2000). Today the term usually refers to classroom lessons about sex taught in primary and secondary schools, usually as part of the biology class. The variety of subjects explored and discussed as a part of sex education include the physical processes of human reproduction, the working of male and female sex organs, the origin dissemination, and effects of sexually transmitted diseases, family roles and structure the ethics of relationships and the emotional and psychological causes and consequences of sex, marriage and parenting. Safe sexual practice is being increasingly focused on with the advent of AIDS (Rajanir, 1998). Frequently, however the larger societal and ethical questions stemming from sexual behaviour, being highly subjective in nature, are not regarded as appropriate to a strictly factual approach. At all levels of instruction, teaching methods may inculude visual aids, lectures and moderated discussions (Sinha, 2002). The researchers suggest the fact that the social workers must create more awareness programs and disseminate scientific sex knowledge & ethics to young people. The evidence is particularly strong that sex education programme has increased knowledge about HIV/STIs and sexual reproductive health among the adolescents. These programs make good communication with parents or other adults about sex, condoms, sexual rights and increased self-esteem to the adolescents.

Table - 3
Distribution of respondents by their source of information about sex

S. No.	Source of Information about Sex Education	Respondents (N:80)	Percentage
1	Clarify doubts regarding sex		
	Yes	69	86.2
	No	11	13.8
2	If yes, with whom (n:69)		
	Father	4	5.7
	Mother	8	11.6
	Brother/Sisters	2	3.0
	Friends	49	71.0
	Teacher	6	8.7
3	Do you feel ashamed of asking questions related to sex		
	Yes	20	25.0
	No	60	75.0
4	Watch movies which are meant for adults only		
	Yes	56	26.3
	No	24	53.7

The table - 3 explicit that, majority of the respondents get clarified their doubts on sex with their peer groups. Further half of the respondents have the habits of watching adult movies through VCR. The growing interest in sex make adolescent to seek more information on sexuality. They take advantage of what ever sources of information that is available. Parents are the first persons to instil knowledge on sex to their children. But parents are either ill equipped by lack of correct knowledge themselves or they are hampered by dis-

comfort over discussing sex with their children. The companions are the chief source of sex information for most adolescents while most others derive it form their friends. The researcher suggests to resist this problem among the adolescents through "Developing Communication Training on Adolescent Sexuality" collaborating with the Association of Guidance Counsellors, Parenting Education, the Media and Family Life Education Specialists to train adults will be more effective in counselling and communicating with adolescents about sexual activity.

Table - 4

Association between age and native place of the respondents and habits of watching adult only movies

S. No.	Socio-demographic characteristics	Habits of watching pornography		Statistical Inference
		Yes (n: 33)	No (n:47)	
1	Age			$X^2 = 6.136$
	16 years	3	4	df = 2
	17 years	10	27	$p<0.05$
	18 years	20	16	Significant
2	Native place			$X^2 = 9.761$
	Rural	14	8	df = 2
	Urban	13	16	$p<0.05$
	Semi urban	6	23	Significant

It is obvious from table - 4 that there is a significant association between the age & native place of the respondents and habits of watching pornography. Further, age and native place has little influence on the habits of watching adult movies experienced by respondents.

Table - 5

Association between age residing at present of the respondents and habits of reading sex magazine

S. No.	Socio-demographic characteristics	Habits of reading sex magazine		Statistical Inference
		Yes (n: 50)	No (n:30)	
1	Age			
	16 years	6	1	$X^2 = 7.881$
	17 years	14	23	df = 2
	18 years	30	6	$p<0.05$
				Significant
2	Location			
	Home	5	9	$X^2 = 5.201$
	Hostel	45	21	df = 2
				$p<0.05$
				Significant
3	Order of born			
	First Born	22	10	$X^2 = 7.361$
	Middle Born	33	0	df = 2
	Last Born	13	2	$p<0.05$
				Significant

It is obvious from table - 5 that there is a significant association between the age, residing at present & the order of born of the respondents and habits of reading sex magazine. Further, age, residing at present, order of born has little influence on the habits of reading sex magazine experienced by respondents.

Table - 6

Association between age of the respondents and willingness to get sex education

S. No.	Socio-demographic characteristics	Wish to get sex education		Statistical Inference
		Yes (n: 68)	No (n:12)	
1	Age			
	16 years	7	0	$X^2 = 6.952$
	17 years	30	7	df = 2
	18 years	31	5	$p<0.05$
				Significant
2	Native place			$X^2 = 6.403$
	Rural	14	8	df = 2
	Urban	26	3	$p<0.05$
	Semi urban	28	1	Significant

It is obvious from table 6 that there is a significant association between the age and native of the respondents and wishes to get sex education. Further, age and native place has little influence on the wish to get sex education experienced by respondents.

SUGGESTIONS

1. Promote Education and Enforcement of Children's Rights.

   Encourage all agencies working on adolescent reproductive health to adopt a rights-based Approach to Programme Interventions. Use the rights of children

and adolescents as outline in the Convention on the Rights of the Child (CRC)

2. Establish a Zero Tolerance Public Education Campaign Target the public and government agencies and invite the latter to a policy forum to develop strategies to strengthen institutional mechanisms, to improve information sharing, monitoring, reporting as well as the conviction of offenders who violate the sexual rights of children and adolescents.

3. Establish Legal Literacy Programmes for Adolescents. This programme should include assertiveness training in negotiating demands from adult males (Particularly); confidence building to speak out and report on sexual abuse, especially incest which has emerged as a major factor influencing early adolescent sexual activity and violence (including rape)

4. Develop Communication Training on Adolescent Sexuality: Collaborate With the Association of Guidance counsellors, Parenting Education, the Media and Family Life Education Specialists to train adults to be more effective in counselling and communicating with adolescents about sexual activity.

5 They should be equipped to communicate, comfortably discuss and organise education and sensitization programmes that focus on:

- The positive aspects of abstinence and masturbation for adolescents under 16 years with special attention to the boys:

- Sex in all its forms (penetrative, oral, homosexual and heterosexual)

- Sex for pleasure and reproduction, the dangers and variations of sexval activity; parental responsibilities;

- The role of church, school and media in shaping adolescents view on sexuality.

7. The sex education programme that provide, for both young females and males that facilitate communication between adolescent partners as well as between adolescents and their parents on sexual matters, and that seek to redress gender imbalances and double standards influencing their own autonomy and well abilityto exercise informed choice.

8. The sex education programme too provide life-skills training aimed at both informing young people of safe sex and available facilities, as well as in negotiating safe outcomes within their social relationships.

CONCLUSION

During adolescentce period when genital organs develop the adolescent undergoes a psychological change and if at this stage he is not properly and sympathetically guided many problems may arise in his future life. During adolescence the boys and girls become shy and this shyness may be overcome if they are provided with a healthy environment, Physical development no doubt gives birth to sexual desires. The stimulants are, romantic music, naked body of girl or of boy, pronographic and obscene literature, own body, obscene films, picture, dances, riding and animal or witnessing sexual acts of animals. The unmarried youth has to face a number of problems such as masturbation, homosexuality, fear of condemnation of society and resorting to other devices in the absence of non-satisfaction of natural desire. Besides these difficulties, there are other problems, which they have to face. Physical deformity of some kind is the most important among them. The researcher tried to find out proper solution for these problems, through his research. The researcher suggests some measures for creating awareness about adolescent sexuality like a conclusive environment for free discussion on sex among the adolescents, of well of between students and teacher and to be developed in students were places colleges, youth organizations, religion information's and other occasions need to be effectively utilized as information and service centers were in the adolescent out side school and college can benefit. Social worker can be appointed in Schools and Colleges getting to practical, scientific information as

sexually and counseling sources for students with problems regarding the same. The findings of the present study indicate the urgent need for educational interventions. Correct scientific information should be disseminated to adolescents both in formal and informal settings so that they do not pick up sexual myths and misconceptions from their peers. This study revealed that 7.5 per cent of the respondents were sexually active. It is possible that the others may not have been very frank in replying to queries. Though this was community based study, the sample size is rather small, sexual activity and sexuality related misconceptions among adolescents may be the Proverbial "tip of the ice - berg".

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A COMPARATIVE STUDY ON YOUTH SEXUALITY AMONG MALE AND FEMALE P.G. STUDENTS OF St. STEPHENS COLLEGE UZHAVOOR, KOTTAYAM DIST, KERALA STATE.

S.SANGEETHA

INTRODUCTION

Indian youth, in the absence of systematic and correct formation on matters related to sex and sexuality are facing a dilemma between traditional Indian norms and Western patterns of expressions. With changing life style, youth often experiment in the process of discovering their sexuality and are more likely to have unprotected sexual intercouse with a grater risk of contracting and STD or having an unwanted pregnancy. Under these changing circumstances, the introduction of effective sex education programmes for all levels of society particularly for youth is becoming increasingly relevant. An attempt has been made in this study to analyze these problems among youth students to find suitable solutions.

SCOPE OF THE STUDY

The researcher has studied the awareness and attitudes of youth towards sexuality and HIV/AIDS. About 50 students

from one college in Kerala are taken as respondents for the purpose of research. The area, which covered under the research, were

I. Socio demographic details.
II. Interaction with parents.
III. Attitudes towards sexuality.
IV. Knowledge about HIV/AIDS, STD etc.
V. Knowledge about family planning.
VI. Opinion about sex education programmes.
VII. The relationship with boy/girl friends.

OBJECTIVES

The objectives of the study are as follows.

- To study the sexual knowledge among youth
- To study the sexual behaviour of youth
- To assess the attitude of youth regarding human sexuality, HIV/AIDS & STDs.
- To study the interaction of youths at home and also in colleges.
- To study the opinions of youths regarding sex education.

SAMPLING AND UNIVERSE

The study was conducted in St.Stephens College, Uzhavoor, Kottayam district, Kerala. Out of 200 Youths study-

ing in institution for PG courses, the researcher excluded 80 students who were studying for short-term courses because their timing was different from the regular course timings. Hence the universe consists of 120 youths studying for PG courses. The researcher used Simple random sampling technique for selecting respondents for present study.

TOOLS OF DATA COLLECTION

The researcher used self prepared questionnaire for collecting data from the respondents.

STATISTICAL ANALYSIS

The researcher used Chi-Square test for the statistical analysis of the data collected.

ANALYSIS AND INTERPRETATION

Distribution of respondents by their age

S. No.	Age	Gender			
		Male		Female	
		N:25	%	N:25	%
1	21 years	7	28	11	44
2	22 years	6	24	7	28
3	23 years	12	48	7	28

Above table states that among the respondents 48% of the males and 28% of the females belong to 23 years, the next 44% of the females and 28% of males belong to the age of 21 years and the rest of the females, (28%) and 24% of the males belong to the age of 22 years.

Distribution of respondents by their stay

S.No.	Stay	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Home	13	52	15	60
2	Relative	7	28	6	24
3	Hostel	2	8	4	16
4	Lodge	3	12	0	0

The table above states that among the respondents 52% of the males and 60% of the females were staying in their homes, the next 28% of the males and 24% of the females were staying in their relatives' home and next 16% of the females, and 8% of the males were staying in hostels.

Distribution of respondents by their family type

S.No.	Family type	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Nućlear	21	84	17	68
2	Joint	2	8	6	24
3	Single parent	2	8	2	8

Above table indicates that the types of family of the respondents, 84% of the males and 68% of the females belong to nuclear family, 8% of the males and 24% of the female belong to joint family and the rest 8% of the females, and 8% of the male belong to single parent family.

Knowlege about hymen

S.No.	Knowledge about Hymen	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Showing Virginity	6	24	6	24
2	Thin skin over vagina	9	36	14	56
3	Do not know	10	40	5	20

Above table shows that the knowledge about Hymen, among the respondents 24% of the males and 24% of the female stated that it is showing virginity. 36% of the males and 56% of the females stated that hymen is thin skin over vagina and the rest 40% of the male, 20% of the female do not aware of hymen.

Knowledge about physiology of male sexual response

S.No.	Particulars	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Yes	20	80	21	84
2	No	5	20	4	16

Above table shows that the knowledge about Physiology of male sexual response, among the respondents 80% of the male and 84% of the female knew about it. 20% of the male and 16% of the female said the opposite answer.

Knowledge about physiology of female sexual response

S.No.	Particulars	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Yes	22	88	8	32
2	No	3	12	17	68

Above table shows that the knowledge about P hysiology of female sexual response, among the respondents 88% of the male and 32% of the female knew about it. 12% of the male and 68% of the female said the opposite answer.

Knowledge about common methods used for abortion

S.No.	Particulars	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Know	2	8	16	64
2	Do not Know	23	92	9	36

Above table indicates that the knowledge about common methods used for abortion, among the respondents 8% of the male and 64% of the female knew about it. 92% of the male and 36% of the female said the opposite answer.

Knowledge about aids & std

S.No.	Particulars	Gender			
		Male		Female	
		N:25	%	N:25	%
1	Know	24	96	24	96
2	Do not Know	1	4	1	4

Above table indicates that the knowledge about AIDS/ STD, among the respondents 96% of the male and 96% of the female aware of AIDS & STD.

Association between gender of the respondents and parents knows boys/girl friends

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	24	19	$X^2 = 4.153$.
2	No	1	6	df=1 $p<0.05$ Significant

Above table reveals that there is a significant association between the gender of the respondents and parents know about their boys and girls friends.

Association between gender of the respondents and parents who allowed to go for late night parties

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	21	14	$X^2 =$ 4.667. df=1 $p<0.05$ Significant
2	No	4	11	

Above table reveals that there is a significant association between the gender of the respondents and parents who allowed to go for late night parties.

Association between gender of the respondents and parents who allowed to stay overnight at their friends' house

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	23	17	$X^2 =$ 4.500. df=1 $p<0.05$ Significant
2	No	2	8	

Above table reveals that there is a significant association between the gender of the respondents and parents who allowed them to stay over night in friends home.

Association between gender of the respondents and discussion about sex matters with their mother

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	1	16	$X^2 = 20.053.$ df=1 $p<0.01$ Significant
2	No	24	9	

Above table reveals that there is a significant association between the gender of the respondents and discussion about sex matter with their mother.

Association between gender of the respondents and discuss about sex matters with their father

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	1	1	$X^2 = 0.$ df=1 $p<0.05$ Significant
2	No	24	24	

Above table reveals that there is a significant association between the gender of the respondents and discussion about sex matter with their father.

Association between gender of the respondents and kind of relationship with their friends

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Brothers/ Sisters	7	7	$X^2 = 3.704$ df=2
2	Time pass	16	11	$p>0.05$
3	True love	2	7	Not Significant

Above table reveals that there is no significant association between the gender of the respondents and kinds of relationship with their friends.

Association between gender of the respondents and discuss matter of sex with opposite sex

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	8	4	$X^2 = 32.468$. df=1
2	No	17	21	$p<0.01$ Significant

Above table reveals that there is a significant association between the gender of the respondents and discussion about sex matter with their opposite gender groups.

Association between gender of the respondents and the habit of masturbation

S.No.	Particulars	Gender		Statistical inference
		Male n:25	Female n:25	
1	Yes	24	11	$X^2 = 16.095$ df=1
2	No	1	14	$p<0.01$ Significant

Above table reveals that there is a significant association between the gender of the respondents and the habit of masturbation.

FINDINGS

- 48% males belong to the age-23 years & 44 % females belong to the age-21 years.
- Majority of the male respondents (84%) and female respondents (68%) belong to nuclear family.
- Majority of the male respondents (88%) are not involved in sexual intercourse with CSWs.
- Majority of the male respondents are not involved in sexual intercourse with family women.
- 52% of the males and 60% of the females were staying in their homes.

- The knowledge about hymen, among the respondents 24% of the male and 24% of the female stated that it is a showing virginity. 36% of the male and 56% of female stated that hymen is thin skin over vagina and the rest 40% of the male, 20% of the female do not aware about hymen.

- The knowledge about physiology of male sexual response, among the respondents 80% of the male and 84% of the female knew about it.

- The knowledge about physiology of female sexual response, among the respondents 88% of the male and 32% of the female knew about it.

- The knowledge about common methods used for abortion, among the respondents 8% of the male and 64% of the female knew about it. 92% of the male and 36% of female said the opposite answer.

- The knowledge about AIDS/STD, among the respondents 96% of the male and 96% of the female aware of AIDS & STD.

- There is a significant association between the gender of the respondents and parents who allowed them to go for late night parties.

- There is a significant association between the gender of the respondents and parents who allowed them to stay over night in friends home.

- There is a significant association between the gender of the respondents and discussion about sex matter with their mother.

- There is no significant association between the gender of the respondents and discussion about sex matter with their father.

- There is no significant association between the gender of the respondents and kinds of relationship with their friends.

- There is a significant association between the gender of the respondents and discussion about sex matter with their oposite gender groups.

- There is a significant association between the gender of the respondents and habit of masturbation.

SUGGESTIONS

- The researcher suggests that to conduct educational programmes about sexual health (or) HIV/AIDS to the youth does not encourage sexual activity to them.

- Sex education must provide in a gender wise to the youth in all educational institutions.

- Parents have to understand the feeling of their children during the period of youth.

- Special programmes must be conducted to make the youths understand the evil effects of smoking, alcohol & drugs.

- Educate the youths about the necessity of knowledge about the symptoms, mode of transmission of AIDS/STD etc..

CONCLUSION

The study helps to understand the sexual behaviour, and sexual attitude of youths. The study also seeks to find out the knowledge of youth towards sex and sex related matters also. This study give few suggestions regarding sex matters to the youth as well as parents of youth.

THE NEED OF THE SEX EDUCATION – OPINIONS AMONG THE P.G. STUDENTS : A STUDY IN TAMIL UNIVERSITY, THANJAVUR.

A. THIRUMAGAL RAJAM
Dr. C. SUBRAMANIAN

One fifth of world population is between the age group of 10 to 19 years. This is the most crucial age in one's life as one learns and acquires the knowledge about oneself, society, surroundings, etc., at this age. Surrounding atmosphere easily influences one's development during this part of life and leaves a great impact throughout one's life. For example these days young people are greatly influenced by entertainment through mass media specially radio, television, videos, films, comics, etc., The entertainment media too thrive on this love of young people and therefore much of mass media entertainment is aimed at young adults. Love, romance, fashion and sex are favorite topics of the entertainment and many young people learn about sex and family life from mass media only.

During the last three decades media – visual, audio and print has been feeding the young curious minds, more

often with misinformation and wrong notions about sex, this in turn has led to rise in sex-related crimes, delinquency, promiscuity, perversions and a variety of other behavioural maladjustments. It is not a healthy trend and calls for effective corrective measures to remove these misconceptions. Sex drive lies dormant during infancy and childhood, blooms in adolescence, flowers in youth and wilts in old age. The critical period in this respect is that of adolescence when curiosity about sex is heightened.

However, the way sex and other facts of life are depicted by the mass media do not match very well with the reality, tradition and cultural values of society. What young people see and hear about sex in popular entertainment is often misleading, incomplete or distorted. The mass media, in reality, provides a dream world to the young people, which they assume as the real world on account of their immaturity.

In such programs, causal or impetuous sex is depicted as acceptable and often as without risks. From most mass media entertainment, young people acquire a casual attitude towards sex. As a result they start sex at an early age and consequently face more risk of unwanted pregnancy, Sexually Transmitted Diseases (STD's) and AIDS. Pregnancy puts young girl's health at risk either through childbearing or through unsafe abortion.

The ills of body and mind can be prevented by timely

imparting correct scientific knowledge and information about sex-by means of sex education – to youth in pre-adolescent and adolescent period of their lives. Home is the best place and parents the best teachers to impart this education by providing guidance and setting an example of behaviour pattern. Of course, the next best place is school where the developing faculties of youth are absorbing the knowledge and information presented to them. A study was conducted to collect opinion of the PG students of Tamil University about the need of sex education among youth. The analysis shows that the majority (85%) of the students accept it is essential for youth. But they regret to say that only 30% of them only are aware of these things.

They also suggest (72%) giving Sex Education through (from 8th Standard) formal education and television is desirable. The extreme trust the parent's repose in the school system and authorities makes the classroom an ideal place to impart sexual health and HIV education to the growing children. The overwhelming majority of the parents and teachers welcome them the move once they know the details of the curriculum. They accept that the well-known fact that in the absence of any guidance, the adolescents are likely to turn to unreliable source, including 'dirty books' also prompts the parents to opt for a school approved system of the sex and HIV education. Given properly, sex and HIV education help youth clarify the values, avoid risky behaviour and to improve negotiation skills. This reduces their overall vulnerability.

increases their capacity of risk perception and increases the options available for leading a safe and disease free life.

So, early education about the facts of life is essential for the development of an individual, society and nation. It makes the life more practical, healthy, comfortable and meaningful. Our education should be such as to cover all practical aspects of daily life in addition to curriculum of social sciences, science and humanities etc. Unfortunately, a cursory glance at the present education system reveals that the syllabi although include detailed study of history, geography, languages, various aspects of sciences, etc. But hardly any topic will give the youth some basic knowledge about having a healthy life.

Teaching should be scientifically correct. It should not sound as sermon or a long lecture on principles of morality and yet should give the subject, the place of pride in individual life. Each session should end in a free frank discussion between educator and the listeners. In other words it should be a two-way dialogue. Sex education can be imparted to groups of varying sizes, which should be homogeneous in age structure and cultural background. Educating the individuals singly would be rather difficult and not cost effective. Imparting too much, too little, too often and too seldom should be avoided but forty minutes once a week should be adequate. Talks and lectures should be supported by audio-visual aids

and their impact be further strengthened by screening films and slides relevant to the topic discussed.

Interest in sex matters starts from the age of Puberty, hence sex education should commence from 8th standard and continue till 12th standard. Sex education should be imparted in a way as to correct commonly found wrong notions and misconceptions that are usually gathered from informal sources. The overall aim of sex education is to ensure that a mature individual has first-hand correct knowledge about sex and sexuality.

This in turn will promote development of a well integrated personality capable of controlling its fertility behaviour, establishing stable social relationship with individual of own and opposite sex based on mutual respect and concern for each other and is capable of making correct adjustments towards difficult situations in life. Development of such a personality would immunize the individual against development of sexual deviations such as:-

- **Promiscuity** which encourages pre marital & extra marital sex as well as spread of **VD&AIDS**

- **Crime** such as eve teasing, assault on children & rape.

- **Delinquency** leading to teenage pregnancies with its associated problem of illegitimacy.

- **Sexual variance** like homosexuality, bestiality, obscenity and pornography.

- **Guilt complex** leading to impotency, premature ejaculation, dysparunia, frigidity etc.

- **Behavioural maladjustment** resulting in divorce, broken homes.

SECTION - II

REPRODUCTIVE AND CHILD HELATH CARE

- Delinquency leading to teenage pregnancies with its associated problem of illegitimacy.

- Sexual variance like homosexuality, bestiality, obscenity and pornography.

- Guilt complex leading to impotency, premature ejaculation, dysparunia, frigidity etc.

- Behavioural maladjustment resulting in divorce, broken homes.

REPRODUCTIVE HEALTH OF INDIAN WOMEN : PERSPECTIVES FROM SELECTED STATES BASED ON RCH-DLHS - 2 DATA

Dr. N. AUDINARAYANA

INTRODUCTION

The concept of reproductive health and its major dimensions have been well defined and described by the Programme of Action during the International Conference on Population and Development (1994) held in Cairo. It stated, "Reproductive health is a state of physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health, therefore, implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this last condition are the right of men and women to be informed and to have access to safe, effective, affordable and acceptable methods of family planning of their choice, as well as other methods of their choice for regulation of fertility, which are not against the law, and the right access to appropriate health – care services that will enable women to go safely through pregnancy and childbirth and provide couple

with the best chance of having a health infant" (U.N.1994). Since then almost all countries have changed their health and family welfare programmes into Reproductive and Child Health (RCH) programmes.

In India, too, the Government of India launched the RCH programme during 1996-97, with an aim to expand and provide quality services for improving the maternal and child health, family planning and to identify and cure the reproductive health problems of women so as the couples would have sexual relations free of fear of pregnancy and of contracting diseases. For this purpose, the focus has been shifted from method – oriented, target-based activity to providing client-centred and demand-driven quality services. Attempts also have been made to reorient provider's attitude at grassroots level and to strengthen the services at outreach levels. However, in order to implement this programme in a successful manner, it is felt that decentralization of planning, monitoring and evalution of the services as essential. As the district being the basic nucleus of planning and implementation of the RCH programme, the Government of India intended to get district level data on utilization of various services provided by the government health facilities, other than that based on service statistics. Therefore, the Ministry of Health and Family Welfare decided to undertake the District Level Household Survey (DLHS) under the RCH programme in the country as a whole. With this backdrop, in this paper, an attempt is made to understand the magnitude of various aspects of reproductive health of women based on the available aggregates at state level using the RCH-DLHS, 2002-04 data,

so as to find out the states that are 'poor' and the data with the help of rank correlations, so as to find out which selected factors associated with overall reproductive health of women (index)

DATA AND METHODS

Secondary data published by the International Institute for Population Sciences (IIPS), Mumbai based on the Round II of RCH District Level Health Survey (IIPS,2006) has been made use of, for this paper (IIPS,2006). The DLHS-RCH (Round II) was conducted during 2002 – 04 in 593 districts as per the 2001 Census. For the purpose of this survey, a systematic, multi-stage stratified sampling design was adopted. In each district, 40 Primary Sampling Units (PSUs – Village / Urban Frame Size) were selected with Probability proportional to size (PPS) using the 1991 census data. For selecting the urban sample, the National Sample Survey Organisation (NSSO) provided the list of selected urban frame size. The target sample size in each district was set at 1,000 complete residential households from 40 selected PSUs. In the second stage, within each PSU, 28 residential households were selected with Circular Systematic Random Sampling (CSRS) procedure after house listing. In order to take of non-response due to various reasons, Sample was inflated by 10 percent (i.e., 1100 households)

For this paper, data pertaining to the following dimensions of RCH of women were drawn for 20 major states of India. They include: age at first cohabitation, %of pregnancies ended as still births, induced abortions, and spontaneous

abortions, % of women had any antenatal checkup, institutional delivery and safe delivery, % of women who reported pregnancy complications, delivery complications and post – delivery complications, % of women currently using any contraceptive method and reported unmet need for family planning, and % women who reported any symptoms of RTIs / STIs and vaginal discharge. In addition to these, data for the four following factors viz, %of women who completed 10+ years of schooling, % of girls who got married below 18 years, % of household with low standard of living (SLI) and % of rural households having any government health facilities in the respective states, so as to see whether these factors have any association with the overall reproductive health status of women. Original data for all these was provided in Table I and 3. Description of some of the reproductive health aspects and background factors is given in Appendix.

For the purpose of analysis, rank correlation method has been adopted. Firstly, ranks have been assigned to each dimension of reproductive health of women (Table2) as well as to four predictor factors (Table 3), based on their magnitude, in each state under consideration. At the next stage, based on all individual ranks assigned to the different aspects of reproductive health of women, an overall index of reproductive health index has been computed by pooling such ranks in each state. Based on these pooled scores (index) the states have been categorized as 'poor', 'fair' and 'better' in terms of reproductive health of women. Finally, the overall index of reproductive health of women (pooled ranks of each state) has been correlated with selected three background factors

of the states, so as to understand the magnitude of associations of these factors with the reproductive health of women (Table 4). All these analyses have been carried out with the help of the software, SPSS- version 11.0 (SPSS Inc., 2001).

RESULTS AND DISCUSSION

The overall reproductive health status of women in each state, based on the pooled rank scores, is given in the last column of Table 2. **Here, one should interpret that lower the scores better would be the reproductive health of women and vice versa.** A glance at this data reveal that, by and large, states situated in southern region and northern region, except Rajasthan, appear to be better placed in terms of overall reproductive health status of women. On the other hand, states located in central and western parts of India are very poor in this regard. It is interesting to note that Andhra Pradesh ranked (score 72) as the 'best' (range between 72-110) states in terms of its women's overall reproductive health closely followed by Karnataka (96), Jammu Kashmir (108), Kerala (109.5), Tamilnadu (110) and Himachal Pradesh (110), whereas the states like Bihar (score 261) closely followed by Jharkhand (233), Utter Pradesh (227), Rajasthan (197.5). Madhya Pradesh (197), Orissa(191.5) and Uttaranchal (189) are 'poor' (range between 233-189) in this regard. Rest of the states fall in between these two ranges of pooled ranks. At this juncture, it is interesting to note that while three out of six states of the best group of states attained the demographic transition in their respective states, mainly because of their individual state policies and programmes related to health and family welfare and they are also comparatively

better in their socio – economic development (Audinarayana et al., 2004). On the other hand, the states categorized as 'poor' are well known for their high population growth and socio- economically under developed nature, which might be working as impediments for the improved reproductive health of their women.

With regard to the selected socio – economic status of women and availability of government health facilities (Table3), with a few exception, one can see that states situated in south and north regions are comparatively better in terms of percentage of women who has completed 10+ hears of schooling and percentage marrying below 18 years, percentage of households under low SLI and percentage of rural households any government health facilities compared to those states situated in central and western parts on India. Kerala state positioned as first in terms of percentage of women who have completed high school education as well as percent of rural households that have any government health facility, it stood last but two (18 rank) in terms of girls married below 18 years of age and last but one (19 rank) with regard to percentage of households fall under low SLI. Conversely, Bihar placed at the lower level in the case of percentage of girls marrying below 18 years and percentage of households under low SLI, whereas it is about 14th and 15th rank in terms of percentage of women completed 10+ years of schooling and percentage of government health facility available to rural households; the lowest in these regard found in Rajasthan and Jharkhand (part of Bihar state till 1991 Census earlier), respectively.

Earlier research on reproductive health of women found that several factors (at individual level) would influence the various dimensions of reproductive health of women (Pachauri and Gittlesohn, 1994; Ramasubban and Jejeebhoy, 2000; Kavitha, 2002). With this in mind, an attempt is made here, whether at aggregate level such an association exist between selected factors at the state level with that of the reproductive health index of women (pooled scores). For this purpose, rank correlation analysis is carried out with the four explanatory variables under consideration with overall reproductive health level of women at the state level.

Table - 4
Rank correlation matrix between explanatory variables and RCH Index

Variables	XI	X2	X3	X4	RCHI
XI	1.000	-	-	-	-
X2	-0.753**	1.000	-	-	-
X3	-0.821**	0.683**	1.000	-	-
X4	0.373	-0.307	-0.656**	1.000	-
RCHI	0.580**	-0.585**	-0.653**	0.565**	1.000

From Table 4, one can see that the rank correlation between the selected independent variables and RCH of women are significantly associated on the expected lines. It

is interesting to note that the percentage of women completed high school education and above is significantly ($p<0.01$) correlated with RCH of women in positive direction indicating that as the percentage of women completed 10+ years of schooling increases the overall reproductive health of women would be much better. Conversely, the rank correlation coefficient between the percentage of girls used to get marry before they attain 18 years of age and the percentage of women living in households of low SLI, and overall reproductive health of women observed to be significantly ($p<0.01$ in each case) higher, but in negative direction. These findings signify that at the state level, women's reproductive health would be poor, where ever a higher proportion of girls/ women enter into early marriages and living in poor conditions. On the other hand, as expected, the programme factor, percent of rural households having any government health facility at the state level has shown a significant ($p<0.01$) positive association with overall reproductive health of women.

Rank correlations between the selected variables (Table4) have also exhibited some more findings, mostly on the expected lines, which would be of helpful in policy and programme point of view. For instance, in states wherever the percent of women educated 10th standard and above, the percent of girls marrying below 18 years as well as percent of women belonging to households of low SLI is significantly less and vice versa. Another interesting fact noticed here is that in states wherever the percent of women belonging to

households of low SLI is high the percent of girls marrying below the legal age at marriage (18 years) is high. Yet another significant feature noticed here is that in states wherever the percent of women belonging to households of low SLI is high, which can be said as less developed areas, the percent of rural households with any government facilities is also found to high.

CONCLUSIONS AND IMPLICATIONS

The analysis of RCH-DLHS, 2002-04 data show that, on the whole, the overall reproductive health status of women residing in the states situated in southern region and northern region, except Rajasthan, seems to be better than those women living in the states that are located at north and central regions of India. While women from Andhra Pradesh turn out to be much better in their reproductive status, the worst situation in this regard noticed Bihar closely followed by Jharkhand. At the state level, women's reproductive health status, by and large, would be much better if their share of those completed high school education and above percent of rural households having any government health facilities, whereas their reproductive status would be poor if more and more of girls marry early and live in household of low SLI.

Based on these conclusions, it is suggested that girls in large number have to be encouraged to go for high school education and above, which would motivate them to marry well after legal age at marriage and also keep up reproductive

health in a better manner. Efforts also may be taken to improve the economic conditions of the women and large number of health facilities have to be provided in rural areas so as to improve the health situation of women. The law on age at marriage has to be implemented in an effective manner so that girls would enter into married life comparatively late (after 20 years of age) and thereby, a number of their reproductive health status aspects viz., giving birth to children, share of pregnancies end up with still births, induced abortions and spontaneous abortions, reproductive morbidity (complications during pregnancy, delivery and post-delivery), etc. would be of lesser magnitude. Finally, overall awareness about the reproductive health programmes, places of services and type of / quality of services available at these places have to be imparted to rural and downtrodden women so as to make them demand such services.

Appendix : Age at first cohabitation <18 Years : Women who had started married life before 18 years of age.

Mean Children Ever Born: Children born to women to 40-44 years of women, completed fertility.

Still Births, Induced Abortions and Spontaneous Abortions : Percentage of all pregnancies to currently married women ended up as still births, induced abortions and spontaneous abortions.

Any Antenatal Checkup : Women who had antenatal check-ups either at home or health facility for their last live births during 01.01.1999 to 01.01.2001.

Institutional Delivery : Women who had deliveries at health institutions.

Safe Delivery : Either institutional delivery or home delivery assisted by skilled personnel viz., doctor, and ANM/ Nurse/LHV.

Complications during Pregnancy : Women who had experienced any of the following preganancyrelated problems such as swelling of hands and feet, paleness, visual disturbances, vaginal bleeding, convulsions, weak or no movement of foetus, abnormal position of foetus and other problems during the pregnancies (that ended up as live births or still births) of last three years preceding the survey.

Complications during Delivery : Women who had experienced any of the following complications viz., premature labour, obstructed labour, prolonged labour, breech presentations, excessive bleeding during delivery and other problems at the time of delivery.

Post Delivery Complications : Women who had experienced any of the following complicatious viz., Prema-

ture labour, obstructed labour, prolonged labour, breech presentations, excessive bleeding, convulsion, severe headache, and other problems after delivery or within six weeks of delivery.

Using Any Contraceptive Method : Current use of any contraceptive method either by women or their husbands at the time of survey (in%)

Unmet Need for FP : The proportion of currently married women in the reproductive age group who are neither having their menopause nor have had a hysterectomy nor are currently pregnant and who intent to have additional children after two years or later as well as those who do not want any more children, but are currently not using any family planning method.

Any Symptoms of RTI/STI : Percent of currently married women reported one or the other symptoms of reproductive tract infections or sexually transmitted infections.

Vaginal Discharge : Percent of currently married women who had experience of abnormal vaginal discharage.

Standard of Living Index (SLI) : In order to measure the economic status indirectly, in DLHS-RCH survey the Standard of Living Index has been computed based on the selected

housing conditions and amenities and ownership of items by assigning scores in the following manner.

1. Sources of Drinking Water - Tap =3, Tap shared = 2, Hand Pump & Well = 1 and Others = 0;

2. Type of House - Pucca = 4, Semi Pucca = 2, Kachcha = 0;

3. Source of Lighting - Electricity = 2, Kerosene = 1, Others = 0;

4. Fuel for Cooking - LPG = 2, Kerosene = 1, Others = 0,

5. Toilet Facility - Own Flush Toilet = 4, Own pit Toilet = 2, Shares Toilet =2, No Toilet = 0;

6. Ownership of Items - Fan =2, Radio/Transistor = 2, Sewing machine = 2, Television = 3, Telephone = 3, Bicycle = 2, Motor cycle/Scooter = 3, Car = 4, Tractor = 4, None = 0.

The pooled scores would vary from 0-40. On the basis of total score, households are divided into three categories : (a) Low = Scores ≤ 9; (b) Medium = 10-19; and (c) High = ≥ 19.

Table - 1 : Perecentage Distribution of Women by Various Aspects of Reproductive Health across the Regions and States of India, RCH-DLHS, 2002-04

Region/States	Age at First Cohabitation <18 Years	Mean Children Ever Born	Still Births	Induced Abortions	Spontaneous Abortions	Any Antenatal Check-up
Northern Region						
Haryana	47.1	4.0	1.4	2.6	6.1	87.6
Himachal Pradesh	23.7	3.2	1.3	2.9	2.9	91.0
Jammu & Kashmir	15.3	3.4	0.9	0.1	0.6	87.6
Punjab	22.7	3.4	1.7	5.0	6.1	89.5
Rajasthan	62.3	4.7	1.5	2.0	4.5	68.1
Central Region						
Chattisgarh	59.3	4.1	1.5	1.2	2.6	78.9
Madhya Pradesh	66.8	4.7	1.4	1.6	3.2	74.1
Uttar Pradesh	62.8	5.4	2.0	2.7	4.5	57.8
Uttaranchal	36.8	4.3	2.0	2.2	3.4	62.6
Eastern Region						
Assam	36.8	3.7	1.2	3.1	3.2	61.5
Bihar	71.5	5.2	2.5	2.1	4.2	37.9
Jharkhand	67.3	4.5	1.3	2.3	3.9	52.2
Orissa	53.3	3.9	2.4	4.6	3.9	75.9
West Bengal	65.2	3.7	2.2	5.8	3.9	90.7
Western Region						
Gujarat	41.7	3.6	1.2	4.0	4.0	87.6
Maharashtra	54.1	3.5	1.1	4.0	3.7	92.9
Southern Region						
Andhra Pradesh	66.4	3.4	1.0	0.5	2.9	94.5
Karnataka	55.6	3.6	1.9	1.5	3.6	91.5
Kerala	21.1	2.5	1.0	3.2	4.8	99.7
Tamil Nadu	34.4	2.9	1.4	6.0	6.3	99.4

Intuitional Delivery	Safe Delivery	Complications during Preg.	Delivery Complications	Post-Delivery Complications	Using Any Contraceptive Methods	Unmet Need for FP	Any Symptoms of RTI/STI	Vaginal Discharge
35.1	43.2	30.8	20.2	24.0	60.3	14.7	30.9	37.9
45.1	51.4	28.2	27.8	25.6	70.1	11.8	31.0	40.6
70.5	73.1	40.1	64.6	47.3	54.8	24.8	16.0	62.1
48.9	64.3	25.5	20.4	18.7	68.2	10.4	21.3	45.1
31.4	44.4	35.9	18.9	27.1	46.9	21.8	47.5	21.4
20.2	29.1	20.1	16.3	16.0	46.6	21.7	17.0	22.5
28.2	35.5	36.4	36.1	35.0	50.5	21.0	38.8	26.0
22.4	28.7	31.3	20.2	33.5	35.6	33.6	35.6	32.9
23.7	32.5	24.0	20.1	26.9	48.7	26.9	45.2	27.5
26.8	33.2	30.6	34.6	31.7	57.5	22.5	23.6	12.4
23.0	29.5	40.8	79.4	46.1	31.0	36.7	39.5	28.5
22.4	27.8	39.0	75.5	44.0	37.9	32.9	38.9	32.0
34.4	43.5	41.6	44.0	42.0	54.7	19.1	32.3	28.2
46.3	54.1	42.2	55.6	43.4	74.1	11.0	36.4	38.9
52.5	62.1	35.2	43.3	25.5	59.2	16.3	37.6	17.2
57.9	62.6	46.8	74.1	35.4	63.3	12.6	42.2	11.6
60.9	69.0	20.5	34.3	17.1	62.8	11.7	13.7	8.2
58.0	66.6	17.6	22.1	17.1	59.3	15.1	19.2	7.3
97.8	98.3	47.5	30.2	18.3	68.5	15.2	41.3	11.5
86.1	89.2	26.3	32.1	16.6	57.7	18.1	17.1	9.4

Table - 2 : Ranks assigned to Various Aspects of Reproductive Health across the Regions and States of India, RCH-DLHS, 2002-04

Region/States	Rank of AFC	Rank of MCB	Rank of SB	Rank of IA	Rank of SA	Rank of ANC	Rank of ID
Northern Region							
Haryana	9	13	10	10	18.5	10	11
Himachal Pradesh	4	3	7.5	12	3.5	6	10
Jammu & Kashmir	1	5	1	1	1	10	3
Punjab	3	5	14	18	18.5	8	8
Rajasthan	14	17.5	12.5	6	15.5	15	13
Central Region							
Chattisgarh	13	14	12.5	3	2	12	20
Madhya Pradesh	18	17.5	10	5	5.5	14	14
Uttar Pradesh	15	20	16.5	11	15.5	18	18.5
Uttaranchal	6.5	15	16.5	8	7	16	16
Eastern Region							
Assam	5.6	10.5	5.5	13	5.5	17	15
Bihar	20	19	20	7	14	20	17
Jharkhand	19	16	7.5	9	11	19	18.5
Orissa	10	12	19	17	11	13	12
West Bengal	16	10.5	18	19	11	7	9
Western Region							
Gujarat	8	8.5	5.5	15.5	13	10	7
Maharashtra	11	7	4	15.5	9	4	6
Southern Region							
Andhra Pradesh	17	5	2.5	2	3.5	3	4
Karnataka	12	8.5	15	4	8	5	5
Kerala	2	1	2.5	14	17	1	1
Tamil Nadu	5	2	5	20	20	2	2

Rank of SD	Rank of PC	Rank of DC	Rank of PDC	Rank of CU	Rank of UNFP	Rank of RSTI	Rank of VD	Pooled Ranks of RCH
13	9	4.5	7	7	6	8	13	149
10	7	8	9	2	4	9	15	110
3	15	17	20	12	16	2	1	108
6	5	6	6	4	1	6	7	115.5
11	12	2	11	16	14	20	18	197.5
18	2	1	1	17	13	3	6	137.5
14	13	13	14	14	12	14	19	197
19	10	4.5	13	19	19	11	17	227
16	4	3	10	15	17	19	20	189
15	8	12	12	11	15	7	10	163
17	16	20	19	20	20	16	16	261
20	14	19	18	18	18	15	11	233
12	17	15	16	13	11	10	3.5	191.5
9	18	16	17	1	2	12	12	177.5
8	11	14	8	9	9	13	14	153.5
7	19	18	15	5	5	18	9	152.5
4	3	11	3.5	6	3	1	3.5	72
5	1	7	3.5	8	7	5	2	96
1	20	9	5	3	8	17	8	109.5
2	6	10	2	10	10	4	5	110

Table - 3
Selected Background Characteristics of Women in the Selected States of India, RCH-DLHS, 2002-04

State/India	X1-% Completed 10+ Years of Schooling	X2-% Girls Married < 18 Years	X3 - % of HHs With Low SLI	X4 - % Any GHF	Rank of X1	Rank of X2	Rank of X3	Rank of X4
Northern Region								
Haryana	24.5	27.8	19.3	64.3	6	10	18	4
Himachal Pradesh	39.6	2.9	25.2	60.0	2	20	16	5
Jammu & Kashmir	22.1	5.0	20.6	74.9	9	19	17	2
Punjab	32.0	10.2	11.8	54.9	3	16	20	9
Rajasthan	11.3	49.4	45.3	66.2	20	2	9	3
Central Region								
Chattisgarh	14.3	31.1	63.5	29.5	18	9	3	18
Madhya Pradesh	13.6	43.5	55.6	34.3	19	5	6	17
Uttar Pradesh	15.2	41.4	54.2	38.1	15	6	7	16
Uttaranchal	25.4	9.8	37.5	28.5	5	17	13	19
Eastern Region								
Assam	19.3	23.8	56.3	51.1	11.5	11	5	11
Bihar	15.4	51.5	66.3	41.0	14	1	1	15
Jharkhand	16.0	43.8	65.8	28.3	13	4	2	20
Orissa	14.9	23.1	62.4	45.5	17	13	4	14
West Bengal	15.1	45.9	51.8	56.0	16	3	8	6
Western Region								
Gujarat	21.5	24.6	34.6	52.3	10	12	14	10
Maharashtra	22.3	12.4	41.	46.1	8	15	11	13
Southern Region								
Andhra Pradesh	19.3	38.6	38.5	55.7	11.5	7	12	7
Karnataka	22.6	31.4	44.6	46.2	7	8	10	12
Kerala	39.9	6.6	16.1	90.3	1	18	19	1
Tamil Nadu	25.8	15.5	33.0	55.0	4	14	15	8

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A STUDY ON MATERNAL AND CHILD HEALTH PRACTICES AMONG RURAL WOMEN

G.HEMALATHA

INTRODUCTION

Recent years have witnessed an increasing concern about the health of Mothers and Children who are considered as rural and tribal. Various programmes and projects have been designed and implemented.

HISTORY OF MATERNAL AND CHILD HEALTH CARE

One of the oldest components of health care is certainly midwifery assistance at delivery by a village matriarch. The WHO review of traditional birth practices show that "Many are physiologically sound and beneficial including the use of traditional delivery positions, allow delivery of the placenta before cutting the cord, delivery in special huts with a source of heat etc." However that other birth rituals are harmless and on occasionally dangerous.

'Professionalisation' of the delivery process began in the late nineteenth and early 20th centuries. Specialized care gradually moved deliveries away from the home or village to the clinic or hospital. Family planning is another aspect of

natural care with long cultural history. For instance sexual abstinence after pregnancy, combined with breast feeding etc.

The Bhore committee in 1946 attributed the causes of low level of health to non – provision of an Environment, Conducive to healthful living, Lack of adequate nutrition, lack of availability of health protection, low level of environment sanitation, Under nutrition and malnutrition, Lack of general education, Inadequate hospital, medical and health facilities.

In 1948 the post of an adviser on maternal and child health care was created in the Directorate General of health services.

- Attention was paid first to the training of health workers.
- Maternal and child welfare projects were undertaken.
- Training of health personnels.
- Establishing mode of health services.
- Strengthening the administration of maternal and child Welfare Services at the state and local levels.

UNICEF gave equipment to several of these new centers.

In 1962 the Mudaliar committee observed that

- The Maternal and child health service were disjointed.
- There was no agency to ensure a systematic follow up of these services.
- The Committee emphasized the need for training and linkage by proper referral care.
- They also recommended immunization and provision of nutritional supplement to mothers and children.

In 1962 the Rain committee recommended an increase

of the number of ANMs to provide maternal and child health and family planning services on an extension approach to a population of every 10,000. The Mukherjee committee in 1966 recommended that the Directorate of Family planning should be free from the other responsibilities such as maternal and child health and nutrition programmes.

In 1974, the Srivastav committee suggested utilization of para Professional workers for the identification of pregnant mothers for regular antenatal care by MPWs. In the 5th five year plan the strategy was revised combining maternal and child health nutrition and family planning services under a common minimum records programme.

MATERNAL AND CHILD HEALTH PROGRAMMES IN PROSPECT

- High priority to the maternal and child health programme.
- Health care for mothers and children through primary health care.
- Support to voluntary organization for emphasizing community participation.
- Maternal and child health services to be provided on the basis of high risk approach and needs.
- Logical, Technical, Consultative and referral support at the secondary level in obstetrics and gynecology.
- Expansion and extension of neonatal services at the appropriate level for reducing infant mortality.

OBJECTIVES OF MATERNAL AND CHILD HEALTH STRATEGIES

1st - Extend these MCH services

2nd - To make them inexpensive that ad equate and easily accessible coverage is possible.

3rd - To organize in such a way as to attract the majority.

MATERNAL AND CHILD HEALTH SERVICES IN RURAL AREAS

The infrastructure in rural areas is based on the complex of primary health centers and their sub centres. Rural health centers would have been established to cover the entire rural areas of the country at the rate of,

- One PHC for 30,000 population.
- One rural sub centre for 3,000 to 5,000 population.

The Govt. of India took initiative for a scheme to train local Dais to conduct safe deliveries in rural areas. The village health guides are also involved in these activities. Motivate integrated child development services (ICDS) projects which are functioning allover the country. (Balwadi. Anganvadi)

OBJECTIVES OF THE STUDY

- ✱ To study the methods of maternal and child health care practices by rural women.
- ✱ To study the awareness about maternal and child health care among rural women.

- ✱ To study the extent of utilization of maternal and child health services rendered to them.

RESEARCH DESIGN

It is the programme that guides the investigation. In the process of collection, analyzing the interpreting data. Research design used in this study was Descriptive. It is in fact an investigation with adequate interpretation.

SOURCE OF DATA COLLECTION

The data for the present study was collected by the following method.

Primary Method	:-	Interview Schedule
Secondary Method	:-	Available Literature

TOOLS OF DATA COLLECTION

The researcher followed a self prepared questionnaire to find out the various problems of maternal and child health care practices.

UNIVERSE

This study was conducted in Velliappilly village, Kottayam district, where the total population is 3032. The male population is 1373 and the female population is 1709 in which there are 201 eligible couples.

SAMPLING PROCEDURE

The researcher followed Simple random procedure for selecting the respondents. Each two respondents take one among the eligible couples that means half of the universe has been taken as sample. In this present study the sampling size is 100 (Mothers).

FINDINGS

Above 50% of the respondents were of the age group of 26-30, absolute half (50%) of the respondents have no income, less than half of the (47%) of the respondents has the qualification of degree, more than half of the (57%) of the respondents have their number of family members in to 3-4, less than half of the (44%) respondents have age at puberty is under 13, more than half (69%) of the respondents by their age at marriage has between 21-25, more than half of the (61%) by their number of children one, less than half of the respondents by their age at the time of first delivery has in between 23 and 25, majority of the respondents (84%) have gone for regular antenatal checkup, majority (76%) respondents have not faced nutritional problem during the time of pregnancy, more than half (68%) of the respondents visited by health workers during the time of pregnancy, more than half (52%) of the respondents has taken TT injection during the time of pregnancy, more than half (52%) of the respondents have not taken FST tablets during the time of pregnancy, more than half (65%) of the respondents by their delivery place were private hospitals, nearly one fourth (22%) of the respondents mode of delivery has been normal, majority of the (85%) have practiced family planning methods, less than half of the (44%) of respondents taken child for common ailment into health care centers, very good majority of the (98%) of the respondents taken immunization to their baby, majority of the (75%) respondents were aware of the services rendered by PSG.

Association between educational qualification of the respondents and child health care practices

S. No.	Educational Qualification	Child Health Care Practices		Statistical Inference
		Yes	No	
1	Regular Antenatal Checkup	n:84	n:16	$X^2 = 1.005$
	Primary	17	5	df = 2
	Higher Secondary	27	4	$p>0.05$
	Degree	40	7	Not Significant
2	Faced Nutritional Problem	n:24	n:76	$X^2 = 1.641$
	Primary	5	17	df = 2
	Higher Secondary	9	22	$p>0.05$
	Degree	10	37	Not Significant
3	Health Workers visit regularly	n:68	n:32	$X^2 = 1.049$
	Primary	15	7	df = 2
	Higher Secondary	19	12	$p>0.05$
	Degree	34	13	Not Significant
4	Take TT Injection	n:60	n:40	$X^2 = 1.803$
	Primary	14	8	df = 2
	Higher Secondary	21	10	$p>0.05$
	Degree	25	22	Not Significant

5	Take FST Tablets Primary Higher Secondary Degree	n:48 6 18 24	n:52 16 13 23	$X^2 = 5.222$ df = 2 p>0.05 Not Significant
6	Know Vaccination Schedule Primary Higher Secondary Degree	 n:90 18 30 42	 n:10 4 1 5	 $X^2 = 3.238$ df = 2 p>0.05 Not Significant

There is no significant association between the educational qualification of the respondents and various dimensions of child health care practices. Majority of the respondents follow a healthy maternal and child health care practice and they are utilizing the maternal and child health services rendered to them and also a minority of them are not aware of such facilities.

SUGGESTIONS

Diarrhoea is identified as the biggest cause of death among the children in the developing world. The mothers should be encouraged to prepare available homemade solution as a substitute of oral dehydration salt. Tender coconut water. diluted yogurt etc. Mother should be educated about the importance of breast-feeding. Though health education is being imparted. much more attention should be paid in this area. mothers are still unaware of the factors such as family planning. immunization etc. Supplementary feeding programmes to the children under five years are extremely important. Female education is the most powerful element in

changing the social attitude and behavioural pattern in the traditional societies to eradicate food taboo systems and traditional practices to support child survival strategies.

CONCLUSION

The vulnerability of mothers and children has traditionally been well appreciated in all cultures, but provision of services through health planning received very little emphasis until very recently, especially in the developing countries of the world. For the present study, the researcher studied the maternal and child health practices among the rural women with special reference to Ramapuram in Vellilapilly Village, Kottayam. From the study, the researcher found that majority of the respondents follow a healthy maternal and child health care practice and they are utilizing the maternal and child health services rendered to them and also a minority of them are not aware of such facilities.

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REPRODUCTIVE BEHAVIOUR OF WOMEN IN RURAL AREA - A SOCIOLOGICAL ANALYSIS

A. BHANU GAYATRI DEVI
A. ELUMALAI

INTRODUCTION

Promoting equality of status for women is to allow them their human rights, the right to decide the family size which is the most fundamental one.But in India,women become subject of double victimization. On the one hand, the technological growth creates opportunities for development of men rather than that of women, because in the absence of training opportunities and lack of mobility, women can not acquire the new skills demand by modern industry on the other hand, the patriarchal families, with which these women are often isolated, give them little opportunity for education and employment. This restricts the women's sphere of activity outside the family and makes child bearing stand out clearly as the preferable alternative (Mandelbaum.D., 1974). Thus when the burden of continued child bearing and child rearing provoke these women to seek alternative solution, they are not in apposition to make their own decisions due to their subordinate status in the family resulting from their lack of resources.

WOMEN AND RESOURCES

Status of women may be defined as the degree of women's access to material resources as well as social resources like knowledge, power and prestige within the family, community and society at large (Dixon.R.B.,1978). Greater the resources that a women brings into her marriage in relation those of her husband, especially with regard to education and outside paid employment, the more equal her voice is likely to be in matters of family planning and contraception (Safilions - Rothschild.C., 1967). The women with resources such as education, employment and income, have autonomy as well as responsibility in choosing the family size. At this juncture, one must also see how choices open to women about their reproduction and how these choices are influenced by structures of decision making power. It is now being increasingly realized their fertility is tied to family organization and behaviour of couples within the family. Hence in the present study the reproductive behaviour of rural women, who do not possess much resources like education. income etc.

THEORETICAL BACKGROUND OF THE STUDY

Resources theory is the best - known attempt made by Blood and Wolfe (1960) to explain the decision making power of husband and wife in all areas of family decision. The resources theory conceptualized education, occupational status and income as resources, within the marital dyad, in assessing decision making power. According to this theory. the balance of power will be on the side of the partners who contribute greater resources to marriage and family. Hence. the present study is trying to analyze the reproductive behaviour of rural women from the point of view of resource theory.

OBJECTIVES OF THE STUDY

1. The first major objective is to analyze the socio-economic background of the respondents.
2. The second chief objective is to ascertain the reproductive behaviour of the respondents.

The Universe of the sample included married women in the reproductive age group of 15-40 years, with more than one child.

Chinna Suriyur, is a hamlet in Suriyur village in Thiruverumbur Taluk, Tiruchirappalli District, Tamil Nadu. In 2001, there were 364 households. The hamlet is situated 19 km away from Tiruchirappalli city. The women in reproductive age of 15 years - 40 years more than one child from 364 households constitute the universe for the present study. The sample for the present study has been collected from all the women of reproductive age by employing census method. For the present study, the data are collected by the Interview schedule method.

FINDINGS OF THE STUDY

While studying the socio-economic background of the respondents, the findings indicate that 53.3 percent of the respondents are concentrated in the age category of 18 years. Majority of the respondents (65.0%) are totally illiterate, not being to able to acquire the basic skills reading, writing and arithmetic. The main reason for the slow progress of girl's education in rural area is the burden of family responsibilities which young girls have to shoulder. As Desai and Patel (1985) write, among the large majority of the population, girls have to help in domestic chores, look after younger brothers

and sisters, earn their livelihood and have to face a general apathy towards their own education. 48% of the respondents are agricultural labourers. As in the rural areas the main occupation is agriculture and most of the women are involved in agriculture.

It can be observed that only one respondent is working in unorganized sector, 1.0 percent of the respondents are housewives and only 3.0 percent of the respondents are government employees. It can be observed that the majority of the respondents (98.0%) are Hindus. The majority (85.0%) of the respondents belong to Backward community. The study reveals that the monthly income for the majority (91.0%) is very low from Rs.1000,5.0 percent of the respondents' monthly income is Rs.1000-2000 and 40.0 percent of the respondents have low standard of living, as their monthly income is very low. The paper throws that 86.0 percent of the respondents are living in the rented house. And all the respondents (100.0%) have no toilet facility and 100.0 percent of the respondents have street pipes to get water. 81.0 percent of the respondents are living under tiled roof while 13.0 percent of the respondents are living under thatched roof and only 5.0 percent of the respondents are living under concrete roof. Majority (72.0%) of the respondents have concrete walls, while 25.0 percent of the respondents have mud walls, and only 3.0 percent of the respondents have thatched walls. Majority (67.0%) of the respondents' house have concrete floor in their house While 20.0 percent of the respondents have floor layered by cow dung 13.0 percent of the respondents are living on mud floor. This shows that the respondents' living condition is not satisfactory.

An overwhelming majority (85.0%) have house with electric facility while 15.0 percent have houses with kerosene facility. Generally in rural areas mostly they have kerosene light, but where as in Chinna Suriyur village surprisingly majority of the respondents have electricity in their house. In rural areas as their major occupation is agriculture, majority (71.0%) of them have their own land. 40.0% of the respondents own wet land, but where as 29.0 percent of the respondents do not own any land. 42.25 percent of the respondents' husband own land, 29.58 percent is owned by others, 16.90 percent of land is owned jointly, 11.27 percent of land is owned by the respondents themselves. This clearly proves the fact that women do not possess land and even if they own only less number of women own land.

It is known that 71.0% of the respondents hold land less than 1 acre, 24 percent of the respondents hold 1-10 acres of land and 1.0 percent of the respondents hold 10 and above acres of land. Thus from the table it is clear that majority of the people have acres less than one acre and this table supports the early findings of the study that respondents get income only from their employment and not from their 3 property i.e.from their land. Usually in rural areas possessions of cattle and poultry are common features. Almost every in rural area will possess cattle in their house while 44.0% of the respondents do not have cattle the table also indicates that only few respondents (24.0%) own poultry in their house and 76.0% of the respondents do not have poultry in their home. Thus the above figures show that cattle is owned by rural people immensely than poultry as cattle is used for milching and milk is used regularly, though not in the form of milk but as curd, buttermilk, butter and ghee whereas poultry

can be used only for eggs and meat which the rural people take regularly, It is vivid that 67.86% of the respondents have less than 3 cattle while 17.86% of the respondents have more than 10 cattle and 14.28% of the respondents have 3.10 cattle. In this data the majority (71.0%) of the respondents have poultry less than three numbers while 21.0% of the respondents have 3-10 numbers of hens only 8.0% of the respondents have hens more than 10 in numbers. The type of family to which a woman belongs is an important factor having a bearing in fertility decisions. In a joint or extended families, the influence of in-laws or other older members is likely to have greater impact on decisions ralated to child bearing and adoption of family planning, compared to nuclear families. The present study divulges that a review of the above table would bring to notice that women nuclear family constitutes the largest percentage in the sample (58.0%) followed by the respondents from joint families (46.0%). The least percentage is (6.0%) formed by women from extended families. The samples reflex the urban trend towards a nuclear family structure. Majority (75.0%) of the respondents' family belonging to the category of Rs.1001-2001. while 15.0% of the respondents' family income for a month is Rs.2001-3001. and only 10.0% of the respondents family belong to the monthly income group of Rs.3001 and above. It is clear that men earn more income than women and this supports the resource theory that the person who has more resources plays the important role in decision - making power. According to the functionalist perspective the family is regarded as a subsystem with the total social system and is not complete until a child enters it either through birth or adoption. Although family formation starts with the birth or adoption of the first child, the number

of subsequent children influences its size and final shape. Thus the concept of family building extends to include the entire process of bearing and adopting children by married-couple. In populations where adoption is a rare scale, family formation virtually represents the pattern of child bearing. The above table demonstrate that 65.0% of the respondents have 2-4 children, 15.0% of the respondents have four and above children and 29.0% of the respondents have 1-2 children. The relation between age at marriage and fertility has been studied by many demographers, but no consistent relationship had been demonstrated (Sinha, 1952). The relationship between age at marriage and fertility is different in different parts of the world, depending upon the demographic factors (Henry and Piotrow, 1982). One strong view is that age at marriage is inversely related to fertility i.e. the lower age at marriage, the longer the exposure to the child bearing (Basavarajappa and Bevalgidad, 1967; Chaudhary, 1982; Henry and Piotrow, 1982). However with regard to various studies made in India a broad generalization could be made that women marrying later than 19 years of the age had approximately 0.5 to 1.0 child less than those marrying between age of 15 and 17 years (Majumdar, 1960). In fact through out the world delayed marriage has an important effect in limiting population growth. Today, aged at marriage is less important than it is used to be in determining how many children a couple will have. This is because that deliberate use of methods of birth control have become a single most important factor in determining family size. As a matter of fact, in Europe the age at marriage has decreased both for women and men, but at the same time the marital fertility rates have dropped to some of the lowest levels ever recorded. In the Indian sub-continent, except in Sri-

Lanka, early marriage is prevalent at the TFR is high (Henry and Piotrow, 1982). In India, the mean age at marriage has increased over a period of time. Currently it is estimated that men marry at 23-29 years and women marry at 18-33 years (Govt. of India, 1990) and generally in rural areas, girls get married at tender age and the present study shows that 37.0% of the respondents got married between 16-19 years. This clearly proves the fact that in rural areas girls get married between 19-22 years and only 7.9% of the respondents got married between 22-25 years. Thus the majority of the girls get married at tender age and as a result longer is the exposure to child bearing. A preference for sons or for more sons than daughters has been documented in several countries in the world. Preference for male children is especially prevalent in South-Asia, East-Asia and North-Africa, while in many European and Latin-American countries, a balanced sex compositions of children is more commonly preferred (Freemar R and Conns, 1974; Williamsons N. 1976; United Nations 1981, Cleland J Verrall J and Vaeseen M, 1983). In India, son preference is very strong and pervasive and has been frequently cited as one of the major obstacles for reducing the National Fertility Level (Khan M.E and Prasand CVS, 1985; Nag. M. 1992; Mathip 1993, Rajarathaam T and Deshpande R V 1994). In rural areas mostly they prefer son rather than daughter for various reasons. These studies show that among the preference of particular sex (53.0%), son preference is a dominating feature of the sample, the percentage of the respondents with this characteristic being 51.0% only 2.0% of the respondents prefer daughter and 47.0% of the respondents don't have particular sex preference. In India generally people prefer son to daughter for various reasons. Hence, the distribution of

respondents according to the reasons for preferring particular sex is taken in to account for the purpose of analysis. The reasons have been grouped into four main categories, economic, cultural, religious, socio-cultural and other reasons. It is of important to note that only 51% respondents emphasize the necessity of a son while other think that it is not necessary to have a son in the family, as they feel that son do not look after the parents and make family bonds weaker. Economic and cultural religious factors are the reasons for performing son only. About 92.16% of the respondents reported that it is necessary to have a son for economic reasons such as to provide old-age security, to carry on family business, to inherit property, while 7.84% of the respondents. Mentioned that it is necessary to have a son for cultural religious reasons such as to perform last rights and to carry on the family name. These respondents did not thing that it is necessary to have a daughter. Because they felt that bringing up a daughter involves responsibility i.e. protecting her honour. The study also reveals that daughter is wanted for quite different reasons. It is noted that only two respondents prefer daughter. The Socio-cultural is the vital reason for wanting daughter as 50% cited this reason. They report that daughter is wanted as they provide to help mother. Provide companioship and are mere affectionate. While 50.0% of the respondents preferred girl child as they did not have girl child in their family. The interesting feature of the above table is that no respondent gave economic reason for wanting girls. The study also shows that about 47 respondents prefer to have either sex. This divulges the changing attitude of rural women, who generally prefer male child.

The findings of the study indicate that respondents want to have a son in order of preference for cultural and religious and economic reason, while daughters are primary desire for socio-cultural reason. Thus it is apparent that there is no absence in changing attitude of rual women on preference for daughters, but the change is at a slow pace at the moment as an over whelming of rural masses prefer sons only. In general,girl's in rural India get married at tender age and as a consequence their first delivery will also be in tender age.

The study vividly reveals that majority (60.0%) of the respondents had their first delivery below 15 years of age while 40.0% of the respondents had their delivery in the age of 15 years - 18 years. This obviously proves the fact that almost every respondent had undergone their first delivery. which is considered as vital event in every women's life. at very tender age. These respondents have given birth to their first child when they themselves are children. In rural areas. most of the deliveries take place at home due to lack of hospitals. And the assistance for the delivery of child is done by the midwives or by elderly women. In the present study nearly 35.0% of the respondent's place of delivery is at home. while 35% respondent's place of delivery is at private hospitals. and 30.0% of the respondent's place of delivery is at Government hospitals. This proves the fact that still rural women deliver their child at home.

To about 60.0% of the respondents assistance of delivery was given by nurse/midwife while 35.0% of the respondents' assistance at delivery was done by their relatives and friends and only 5.0% of the respondents' assistance at deliv-

ery was done by the Doctors. This vividly proves the fact that majority of the delivery in rural areas are done without the assistance of Doctor. This may be due to the ignorance of rural people or the unwillingness of the Doctor to work in rural areas. Women in rural areas are ignorant about the medical facilities available for the pregnat women and them also unaware of the need for the medical treatment, medical check up for the pregnant women. It is vivid, that 63.0% of the respondents did not get inoculated during their pregnancy. Thus the above data in the table divulges that majority of the women in rural areas are aware of the need for medical treatment during pregnancy. About 37.0% of the respondents had discussed about the family planning with their husband and 63% of the respondents had not discussed about the family planning with their husband. About 81.08% of the respondents who had discussion about family planning with their husband had no difference of opinion but where as 18.92% of the respondents husband had difference of opinion regarding family planning. This shows that most of the women never discuss about family planning even with their spouse and the data also shows that even if women discuss about the family planning matters to their spouses they had differences of opinion. This proves the fact that rural masses are still ignorant about the family planning. After the birth of the first child discussion about the spacing of the second child is very important factor in the family planning decision. About 29.0% of the respondents had made decision about the spacing of the second child. Thus respondents had made decision about spacing of the second child due to the complication they had during the time of first delivery. While majority (71.0%) of the respondents did not take any decision about spacing of

the second child despite the complications they had in their first delivery. This shows their ignorance about the maternal and child health. And another fact is that generally in rural families it is felt that more children are an asset as they mean more hands to work on the farm. In India, rural areas decision is any family matter is decided by male member of the family. The present study shows that more than half (55.17%) of the respondents had initiated discussion about the spacing of the next child, 44.83% of the respondents husband had taken the final decision about the spacing of the next child, but where as the final decision about the spacing of the child 65.52% of the respondents' husband had taken the final decision about the spacing of the next child, but where as the final decision about the spacing of the child, 65% respondents' husband had taken the final decision about the spacing of the next child, 34.48% of the respondents had taken the final decision about the spacing of the child. This shows the dominance of the male members in the family.

Abortion is possible when the most divisive women's health issue that policy makers and planners face particularly in developing countries where safe abortion facilities are not available to most women. The health risk of abortion multiplies manifold if a women has to resort to it repeatedly. Given the fact that women in India have little control over their own fertility and also have poor health, the chances are very high that they may not only experience abortion, which includes both spontaneous and induced abortion, once but perhaps more than once. The present study shows that 18.0% of the respondents had aborted their foetus while 82% of the respondents have not terminated their foetus. Medical termination of preg-

nancy (MTP) or abortion is not only a medical issue but also a psycho-social and cultural phenomenon. Since time immemorial, women have been resorting to abortion to terminate their unwanted pregnancies. Importantly in the early year, abortion used in spite of the institution and often at the hands of unqualified persons. The circumstances and reasons have been so compelling (mostly psycho social and cultural) that women have often have risked their lives in resorting to abortion. Generally in India, particularly in rural areas the women have been compelled by either members of the family or by their husbands to terminate their foetus. The study clearly portrays 72.22% of the respondents had abort their foetus by themselves, 16.67% of the respondents had jointly made decision to induce abortion, 11.11% of the respondents husband induced them to abort their foetus.

The study shows that 66.67% of the respondents had abortion due to ill health, 33.33% of the respondents had abortion due to the previous child was too young. It is clear that even though the rural people have low income, they didn't have abortion due to low income, they don't have proper food, which may lead to ill health, which is main cause for having an abortion. Decision making is a predominant area that is to be discussed in any study for a women. Even in urban areas and in middle class and upper class families where women earn considerable sums of money, decision making is by and large left with the men. The concept of the male as the decision makers and woman as the follower has persisted for several centuries in India. In rural areas decision making process is solely done by male members of the family. Including decision made for aborting the foetus. The majority (66.07%)

of the respondents have under gone abortion after spouses made decisions while 22.2% of them have made decisions jointly to undergo abortion and only two respondents have taken decision by themselves regarding abortion. Thus it reveals that women in rural areas depend on their spouse for decisions. Having sterilization is an important instance of family planning method and proximate determinant of family size. It is clear from the above preview that only 37.0% of the respondents had under gone sterilization while 63.0% of the respondents had not undergone sterilization. Sterilization after one child is uncommon in the Indian setting, and the sample, according to the above table reflects this trend. About half (48.65%) of the respondents had undergone sterilization after three children, 32.43% of the respondents had undergone sterilization after four children, while 18.92% respondents had undergone strelization after two children. Generally in India decision making on any matters is taken by male members of the family, even regarding family planning, men played an important role in decision making. Though very less number of men has undergone vasectomy, majority of them insisted their spouses to undergo sterilization for which women had no power to decide. The study distinctly reveals that only 18.09% of the respondents have taken decision on sterilization by themselves as they already had four children and moreover they are still in the child bearing age and as they fear possibility of bearing children in future they without consulting their spouses decided to undergo sterilization. But the majority (81.0%) of the respondents after their spouses decision have done sterilization. This proves the fact that in rural areas women carry out any work including family planning only after their spouses made decision.

S. No.	Sterilization	Level of Education					
		Illiterate	Primary	Middle	High Scholl	Higher Secondary	Total
1	Yes	18 (27.70)	4 (40.0)	5 (38.50)	8 (80.0)	2 (100.0)	37 (37.0)
2	No	47 (72.30)	6 (60.0)	8 (61.50)	2 (20.0)	-	63 (63.0)
	Total	65 (100.0)	10 (100.0)	13 (100.0)	10 (100.0)	2 (100.0)	100 (100.0)

Education is a direct and powerful indicator of the status of women. However the relatonship between education and family planning is complex. It is intricately associated with many social, economic and psychological factors and attitudes. Education creates a favourable attitude towards small family size norm and improving awareness and use of family planning methods. A number of studies, Singh K.P. (1989), Patnaik, M.M (1985), Arora, Gomti (1990), Vashishk B.K and Rana R.K (1991) have brought out clearly the impact of the female education on reduction of family planning. In the study of Aggarwal, literacy does not emerge as significant variables in the overall acceptance of spacing methods. Hence, the distribution of respondents by sterilization and level of education is taken into account. The data in above table divulges that majority (63.0%) of the respondents have not undergone sterilization on while 37.0% of the respondents have done sterilization. This vividly proves the fact that women in rural

areas despite two children have not done sterilization due their ignorance about family planning. These seem to be a pattern relationship between sterilization and level of education. The figures in the above table shows that immense (72.30%) respondents who are illiterate have not undergone sterilization while only eighteen of the respondents who are illiterate have done sterilization. This proves the fact that illterate women in rural areas have not at all responded with enthusiasm though a good portion of Government resources are being spend on family planning programme. In fact it makes economic sense to the rural women to sense a large family and looking after the field. The data also discloses that the respondents who have completed primary school only 40.0% of them have done sterilization, while 60.0% of them have not done sterilization and among the women who have completed the middle school level education. 61.05% of the respondents have not done sterilization, while 38.05% of them have done sterilization. This shows the women who are marginally educated too never shown interest on family planning. The women who completed high school 80.0% of them have under gone sterilization while only two respondents have not done sterilization. And all the respondents who have completed higher secondary education have done sterilization and the respondents feel that each child means an extra burden on the family fi- ces. But the over all patterns reflect the fact the illiterate rginally educated women in rural area consider each otential worker and it is for this reason that family kes poor sense to the rural families. Thus, these ings on respondents education on steriliza- association can be categorically estab- els of the education on and steriliza-

S.No.	Sterilization	Income			
		Rs.1-1000	Rs.1001-2000	Rs.2001 & above	Total
1	Yes	34 (37.40)	1 (20.0)	2 (50.0)	37
2	No	57 (62.60)	4 (80.0)	2 (50.0)	63
	Total	91	5	4	100

Many studies in India have taken into account the role income in relation to fertility and most of them, for example Sinha's (1957) Differential fertility and family limitation in an urban community of Uttar Pradesh, Ananda.K an analysis of differential fertility in Chandigarh (1966) and Srinivas's (1967) Perspective study of the fertility behaviour of a group of married women in rural India have depicted their fertility decreases as income decreases. Reddy's (1984) Socio economic and demographic factors and their influence of family planning behaviours among non-adopters, finds that income is directly related to favourable attitudes to family planning, irrespective of caste. However some of the studies for example, Driver's (1960) Fertility differential among economic strata in central India, and Singh's (1989) correlates of fertility behaviour. A study of rural communities in Punjab and Haryana, do not reflect any regular gradation in various income groups. On the other hand in the study by Patnaik (1985) Fertility behaviours no inverse relationships between fertility and income has been observed. His research shows that as income goes up from the lowest conceivable limit, fertility

also tend to rise progressively up to a certain level, indicating a marked variaton of positive correlation between the two. However beyond that level of income, there appears to be a tendency for fertility to decline. This tends to suggest, that minimum economic prosperity may be essential for decline in fertility.

The above table clearly brings out the picture that among those who had undergone sterilization 37.40% of the respondents income is from Rs.1-1000, this vividly proves the fact that in the rural areas despite low income the rural women never get sterilized even after giving birth to two children. But 20.05 of the respondents whose income is Rs.1001-2001 had undergone sterilization and 50.0% of the respondents whose income is from 2001 and above had undergone sterilization. The overall pattern displays that imcome is the one of the main factor for sterilization.

The above table clearly shows that 57.0% of the respondents who belong to the income group of Rs.1-1001 had not under gone sterilization while 80% of the respondents whose monthly income is from Rs.1001-2001 had not undergone sterilization whereas 50% respondent's monthly income is from Rs.2001 and above had not undergone sterilization. Thus table clearly shows that in spite of less monthly income of the rural women do not undergo sterilization as they consider children as their assets.

CONCLUSION

The overall findings of the study shows that the greater the resources a woman possess the higher is the decision making power in matters of family planning. This is in confor-

mity with the resource theory of Blood and Wolfe (1916) education motives women to have a smaller family and women's employment given them exposure to wider contacts. Income from occupation gives women power to decide about family planning. But still women are unable to translate their resources (education, occupation and income) into decision making power because their husband exerts their control in all areas of family life, including reproduction and contraception.

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PERCEIVED BURDEN OF CAREGIVERS OF PERSON WITH HIV/AIDS

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INTRODUCTION

In this fast moving world, our modern science and technology are improving enormously. Modern medical science has achieved many miracle. But, still we are not able to find a solution or cure for HIV/AIDS.

AIDS was first reported in 1981 in the United States of America and since then it has become a major pandemic. India accounts for over 10% of people living with HIV/AIDS.Globally, while holding 60% of the 7.4 millions of PLHAs in the ASIA PACIFIC region. India has the second highest number of people with the virus in the world, next only to South Africa, AIDS is seen as the most pressing international problem of our era.

Today, the concern over the HIV/AIDS is not merely as a medical problem but also as a social, cultural, political, economical and ethical problem. It is one of the greatest public health crises, more than a devastating disease, it brings social and cultural aspects to the fore.

Most of the health problems will affect either the young or the elderly, but HIV strikes mainly those in the productive and reproductive age group of 15-45 years, both genders of all ethnic groups, covering all socio economic status. Psychosocially HIV/AIDS is a chronic illness with a long-term incapacitating, stigmatizing and terminal character. As is the case with other chronic illnesses HIV/AIDS has a devastating effect on family, changes in the family roles and relationships, drain on the family economy, deprivation, emotional distress and caregivers burden are the frequently observed outcomes. HIV poses an extraordinary challenge for caregivers and their family members. In general, the caregivers have faced social stigma, social, emotional, psychological and financial problems in the course of the disease.

In India, mostly family members or spouse are primary caregivers to the PLHAs. These caregivers face multiple challenges in their attempt to care for their ailing family members. This includes financial shortage or inability to harness methods for income generation. This hampers caregivers' occupation, income generation which leads on to malnutrition. In addition to the patient, the caregiver also faces stigmatization from medical as well as relatives and friends, which may change his or her outlook towards the PLHAs. The initial news about the positive status of the individual in the family is associated with shock, disbelief and fear of stigmatization because of its association with sexual morality. So it is not shared with others.

These factors which play a major role in determining the attitude of family member to care for the PLHA made us

to study the burden faced by the caregivers and find remedial measures if any so that they can be motivated to continue caring. This will go a long way in keeping these unfortunate people living with the disease for months or years to come.

MATERIALS AND METHODS

The paper aims to find out the perceived burden of caregivers of person with HIV/AIDS.

The data collection was done from caregivers of HIV/AIDS person attending Coimbatore Medical College Hospitals, various private clinics and NGOs in Coimbatore. The selection of the respondents was made on the basis that should be attenders or caregiver of the HIV positive person for at least six month period. The data was collected from 100 respondents between January 10th and February 16th of 2007. The non probability (convenience) sampling method was adopted for data collection.

The researcher used the tool "Burden Assessment Schedule" developed by Thara, R.et.al, 1995. The researcher used burden assessment schedule (BAS) in vernacular language. In this study quantitative method was followed. The parameters for the respondent were Age, Sex, Education, Income, Care giving period and Burden Assessment (Financial burden, Caregiver/occupational burden, Patient behaviour. Social relation, Caregivers health, Family relations and Emotional Burden)

ANALYSIS AND INTERPRETATION

Table -1

Age and burden of the respondents

Age of the respondents	Burden		Total
	Burden some extent	Very much burden	
up to 25	1	1	2
26 to 35	21	17	38
36 to 45	34	9	43
46 & above	3	14	17
Total	59	41	100

The above table shows that one third respondents of 36 to 46 age group faced burden to some extent and 9 percent of them in very much burden. In general majority of the caregivers fall under the age group of 26 to 45, facing burden at various levels.

Table - 2

Sex of the respondents

Gender	Frequency	Percent
Male	27	27.0
Female	73	73.0
Total	100	100.0

The table 2 depicts that majority (73%) of the caregivers are from female category. It shows that female sex is traditionally taking the responsibility of nursing the sick persons.

Table - 3

Educational status of the respondents

Level of Education	Frequency	Percent
up to 5th	28	28.0
6th to 10th	38	38.0
11 to 12	7	7.0
College	27	27.0
Total	100	100.0

The above table reveals that 38 percent of the caregivers' education was high school level (6th to 10th).

Table - 4
Income and burden of the caregivers

Income of the Respondents	Burden		Total
	Burden some extent	Very much burden	
up to 1500	30	12	42
1501 to 3000	14	6	20
3001 to 4500	7	8	15
4501 to 6000	3	6	9
6001 to 7500	1	7	8
7501 and above	4	2	6
Total	59	41	100

The table 4 shows that nearly half (42%) of the caregivers from the income group of up to Rs. 1500 facing burden. in that 30 percent to some extent and 12 percent of them facing very much burden. However in general majority of the caregivers hail from low income category (up to Rs.3000), it shows that the income and burden are positively associated.

Table - 5
Marital status of the respondents

Marital Status	Frequency	Percent
Single	6	6.0
Married	94	94.0
Total	100	100.0

The above table shows that a vast majority (94%) of the caregivers are married.

Table - 6
Type of family

Family Type	Frequency	Percent
Nuclear family	74	74.0
Joint family	26	26.0
Total	100	100.0

The above table reveals that majority (74%) of the respondents are from nuclear family.

Table - 7
Domicile of the respondents

Residence	Frequency	Percent
Urban	47	47.0
Rural	32	32.0
Suburban	21	21.0
Total	100	100.0

Table 7 depicts that nearly half (47%) of the respondents are residing in urban area. However in general majority (68%) of the caregivers hails from urban environment.

Table - 8
Respondents' care taking period and burden

Care taking period	Burden		Total
	Burden some extent	Very much burden	
6 to 12 months (up to one year)	34	0	34
13 to 18 months (1.5 years)	13	7	20
19 to 24 months (2 years)	6	14	20
25 to 32 months (2 to 2.5 years)	0	13	13
33 months and above (more than 2.5 years)	6	7	13
Total	59	41	100

The above table predicts that nearly half (47%) of the caregivers are facing burden to some extent in the initial period (6 months to 18 months). Where as the severity of burden increases after two years. It shows that in the early period of illness, the caregivers are having sufficient resources and family support to take care of the patient, but due to lack of improvement in health it drains their financial and social interatcions it leads to depression.

Table - 9
Multiple Correlations

Variables	Age	Education	Income	Care taking period	Total
Age	1	-.197*	.080	-.048	.354**
Education of the respondent	-.197*	1	.719**	.022	.002
Income of the respondent	080	.719**	1	.076	.337**
Care taking period	-.048	.022	.076	1	-.138
Total Burden score	.354**	.002	.337**	-.138	1

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

The variable age and income is positive and significantly correlated with burden at.01 levels. Education and in-

come variables are correlated significantly were as age and education of the respondents are negatively and significantly correlated. The patient care taking period and burden of the respondents are negatively correlated.

DISCUSSIONS

In this study 47 percent of the respondents were in the age group of 36 45 years. Majority (73%) of respondents were females, more than one third (36%) of the respondents educational level were 6th to 10th, a vast majority (94%) of respondents were married. Three fourth (74%) of the caregivers belong to nuclear family.

More than half (55%) of the caregivers are facing very much financial burden, rest of them were faced to some extent of burden, because the caregivers are sole responsible for the patient's treatment, nutritious food, and others needs.

More than half (59%) of the caregivers face burden to some extent in their occupation, however 41 percent are in very much burden. It is due to the patient care they find difficult to do their personal work and occupation. At the same time caregivers were forced to work for their survival. Care givers felt that it is extra burden for them.

Majority (72%) of caregivers perceived to some extent of burden due to the patient's bahavior, the reason for it may be that the patient felt that the caregivers are not giving adequate attention and care, and also they were not showing much interest in taking care of themselves. Patients' behavior infused more burdens to the care givers.

Majority (79%) of the caregivers face burden in social activities and the rest (21%) of them are in very much burden, because illness prevents the caregivers to share their problem with others, further the interaction and relationship with their relatives and friends leads to low ebb.

Majority (60%) of the caregivers are in burden to some extent due to not taking care of themselves, where as the remaining respondents (40%) faced very much burden. The reason for it may be the caregivers are indebted to take care of the patients, due to that they exhausted and have no time to relax.

Majority (79%) of the respondents face burden to some extent in their family relationship and rest (21%) of them were in vary much burden, because they were unable to give adequate care to their family members and also the caregivers are not getting any help or appreciation in hospitalization.

Majority (67%) of the caregivers face to some extent an emotional burden and the remaining (33%) were in very much burden, because the caregivers are responsible to full fill the patient's needs (treatment, nutritious food, etc...), so they felt depressed, anxious, fear due to no solution for the illness, and also they were frustrated in having no improvement in the patient's health.

The burden level of the caregivers increases with increase in age, by virtue of poorer economic condition the caregivers facing more burden and further when the caretaking period increases the caregivers suffering reaches the peak.

CONCLUSION

After 25 years of existence, the HIV/AIDS epidemic still has capacity to produce fear with regard to giving care to PLHAs. The burden perceived by the caregivers in this study clearly indicates that majority of the respondents are not in a position to meet the needs and expectation of the PLHAs. The evidence from this study reveals that most of the caregivers faced burden at least. The burden associated with respondents' age, sex, education, income, care taking period and family situations. The findings infer that there is a need for intervention to reduce burden through stabilizing the support system, social net work, medicare, emotional empowerment, relaxation and income generation programs. Provision can be made through authorities to give care and support by the Governmental and Non-Governmental organizations. It will change the attitude of the caregivers and public towards PLHAs for their well being.

BREAST FEEDING – FACTS AND PRACTICE

Dr. B.SANTHI

March is the month when the international women's Day is celebrated all over the world. Here one should know about nature's bequest of women i.e. breast milk. By deciding to breast-feed, the mother gives the best possible start of life to the child. Children make up the families, the communities and the Nation.

In the early years of human species, breast-feeding was as common as it was for other mammals in feeding their young. There were no substitute foods for the infants, and the mother, along with other lactating females, would have no choice but to breast-feed the children. This process is still seen in many developing countries.

Early days in Egyptian, Greek and Roman empires, breast-feeding began to be seen as something too common to be done by royalty and wet nurses were employed to breast-feed the children of the royal families. This was extended over the ages, particularly in Western Europe, and saw women of noble birth making use of wet nurses. According to some Brahminical literature, breast-feed in the 2nd century in India was commonly practiced but not until the fifth day, allowing the colostrums to be discarded and the true breast milk flow.

FACTS ABOUT BREAST MILK

1. The first milk or colostrums which the mother secretes in the first few days after delivery contains substances like antibodies that help to protect the body from infection and stimulate the body's immune system.

2. After a baby has been nursing to about 3-4 days, the colostrums in the breast slowly begins the process of changing into mature breast milk over the next two weeks.

3. A well nourished lactating woman usually secretes about 850 ml. milk per day in the first six months. Subsequently the amount starts decreasing. But there are individual variations.

4. The supply of milk in the breast is determined by the frequency and length of the baby fed or amount of milk expressed.

5. The birth weight of the baby may affect its feeding habits and mother may be influenced by what they perceive its requirements.

6. The average breast-fed baby doubles birth weight in 5-6 months.

7. Sucking is essential in maintaining lactation.

8. When direct breast feeding is not possible, a baby may still be fed breast milk by expressing her milk. Ex-

pressed milk can also be used to help a mother who has difficulty in breast feeding.

9. Expression can be used to maintain lactation, such as when the mother and child are separated for an extended period.

10. Expressed milk may be used for seven hours, refrigerated for up to 8 days or frozen for up to 4 months.

11. Some women donate their expressed breast milk to others either directly or through milk bank.

12. The practice of exclusive breast feeding has dramatically reduced infant mortality in developing countries due to reduction in diarrhoea and infectious disease.

BREAST - FEEDING - BENEFIT FOR MOTHERS

1. Breast-feeding mothers get health benefits too with a reduction in the risk of breast cancer, ovarian cancer, and osteoporosis.

2. Breast-feeding also helps get back the pre-pregnancy weight more easily.

3. Breast-feeding helps the mother to return to the normal pre-pregnancy shape faster. It takes care of extra fat and also hastens the shrinking of the womb to its normal size.

4. Breast-feeding is free: No need to buy formula, bottles, teats, sterilizing equipment etc.,

5. Breast milk is always available, with the right ingredients, at the right temperature.

6. Breast milk has a contraceptive significance, and it helps in spacing childbirth. But it certainly is not a foolproof prevention method against conception.

7. Above all, it gives the mother a huge sense of achievement, seeing the baby grow and develop well.

BREAST - FEEDING - BENEFIT FOR CHILDREN

1. Breast milk is different from formula milk as it contains substances like antibodies that simply can't be manufactured in formula. Antibodies help to protect the baby from infection and stimulate the baby's immune system.

2. Studies have compared the health of children who were breast-fed as babies and children who were fed formula milk. The results showed that breasting substantially reduces the risk of illness. This protection can last for many years and the longer you breast-feed, the greater the health benefits. However, breast-feeding for a short time, even a few days or weeks, is better than not at all.

3. Specific health benefits for the baby include less risk of diarrhoea, stomach upsets and gastroenteri-

tis, coughs and colds, ear and chest infections, urinary infections, allergies, asthma, eczema and childhood diabetes.

4. Breast milk contains all the proteins, fats, carbohydrates, minerals and vitamins in the correct proportion.

5. Since there is no foreign protein in mother's milk, allergy from mother's milk does not occur.

6. Breast-fed babies are less likely to be overweight than those fed on the bottle.

7. The baby's jaw development is healthier.

8. Breast-fed babies also have better mental development than babies fed on formula milk.

9. Research into the benefits of breast-feeding is continuing, but some studies have suggested that breast-feeding may even continue to protect children's health when they grow up, making them less prone to conditions such s obesity, high blood pressure and heart disease.

POINTS TO BE REMEMBER BEFORE FEEDING

The mother should sit in a comfortable position, hold the baby in her arms, and offer the baby her whole breast & not just the nipple

The baby should be fed from a different breast each time so that both breasts produce the maximum amount of milk. The baby should be fed, whenever she is hungry. Before offering the second breast to the baby, it should be ensured that the baby sucks the fat rich hind milk from the first breast.

- ★ A daily bath is sufficient to keep the breasts clean.
- ★ Frequent cleaning with soap removes the natural oils from the breasts, predisposing the nipples to develop fissures.
- ★ Patting the baby after every feed by holding her against the shoulder is advisable.
- ★ A mother who is feeding her baby should eat healthy food to keep up her strength & feed the baby letter.
- ★ At times the breasts may feel hot, heavy, and hard, due to accumulation of milk.
- ★ The mother should be encouraged to let the baby continue to suck for as long as possible.
- ★ If still enough milk is not removed, the milk should be squeezed out in a clear (preferably) boiled cup using the thumb and the finger.
- ★ A warm compress on the breast or a warm bath is also helpful.

- ★ If the baby is fed frequently both during the day and night this condition (engorgements of breast) is uncommon.

- ★ If nipples are cracked and painful, the mother is advised to leave a drop of hind milk on the nipple after feeding as this helps in healing. Malai can also be applied.

International Guidelines recommend that all infants be breastfeed exclusively for the first six months of life. Each country has its own policy regarding infant feeding. but it is generally accepted that newborns should be exclusively breast-fed for around 6 months, and that breast-feeding should continue with the addition of appropriate foods. for two years or more. Extensive research, especially in recent years. documents diverse and compelling advantage to infants. mother. families. and society from breast-feeding and the use of human milk for infant feeding. These include health. nutritional. immunological. psychological, social, economic and environmental benefits (The American Academy of Pediatrics).

The benefits of breast-feeding are both physical and psychological for both mother and child. Nutrients and antibodies are passed to the baby while hormones are released into the mother's system (2007). Frequent and exclusive breast-feeding delays the return of menstruation and fertility known as lactational amenorrhea (2000). Breast-feeding as soon as possible after given birth increases levels of oxytocin which encourage the uterus to contract more quickly and decreasing maternal bleeding (1999). Small but measurable increase in cognitive ability and education achievement were

found, even after adjusting for other factors such as maternal educational level (1998). Mothers can find breast-feeding helps them return to their previous weights as the fat accumulated during pergnancy is used in milk production (1993).

AIMS & OBJECTIVES

This study tries to find out the public awareness about breast-feeding , feeding practices and related health benefits of both mother and child. This study is based on the descriptive design, using Interview schedule. Data from 40 members from Self Help Group of Paruthikudi village namely, Vettri Tamil, Valar tamil, Elelakkia Tamil, Bharathiyar, Gramavedial, Maduram, Suriagandhi, Anadham near by Thiruvaiyaru Town Panchayat was collected and subjected to content analysis.

40% of the respondents was between the age group of 23 years and 27 years and the same percentage were illiterates. More than three fourth (75%) were hailing from Nuclear family. The very high majority (80%) of the respondents were Agricultural coolies. About more than half (65%) of them have more than two children. More than half (70%) continue the breastfeeding their babies more than 6 months. Nearly three by fourth (77%) were start to breast-fed their within 3 hours. About 70 per cent of the respondents feeding some forms of substitute along with breast milk within six months.

Majority of the respondents (75%) believed that breast milk contains antibodies which will protect the child from infection and also stimulate the immune system. Only 40% of the respondents said that breast milk is balanced diet for babies. Only 16% of the respondents accept that breast-fed babies' jaw development is healthier than other babies.

AWARENESS ABOUT BREAST FEEDING

S. No.	Attitudes about breast milk	Yes		No	
		Respondents	%	Respondents	%
1.	Using substitute within six months	28	70	12	30
2.	Antibodies in the breast milk will protect the child	30	75	10	25
3.	Balanced diet	16	40	24	60
4.	Jaw development is healthier	8	20	32	80
5.	Weight gain	21	55	19	45
6.	One of the deciding factor of mental health	36	90	4	10
7.	Save money and	36	90	4	10
8.	Emotional involvement	40	100	0	0

More than half (55%) of the respondents felt that breast fed babies are less likely to be overweight than those fed on the bottle. 90% of the respondents did not know that the breast feeding is the one of the deciding factors for mental development. Majority of (70%) of the respondents do not know about the benefits for mother. Majority of (90 percent) the respondents accepted that the breast feeding saves

money and reduce work load. The entire respondent i.e. 100% respondents believe that breast feeding helps the child to be emotionally involved with them. At the same time no body knows about the existence of the milk bank.

CONCLUSION

Breastfeeding is the healthiest option for the mother and baby. The maximum benefits are gained by feeding breast milk and nothing else until around six months, and then continuing to breastfeed after solids are introduced until the baby is a year or more old. Breastfeeding is eco-friendly. There's no bio-hazard, manufacturing, pollution, packaging or waste involved. Many countries have framed legislations that make employers duty bound to ensure that conditions are provided so that mothers are able to continue breastfeed after resuming their employment. If creche facilities are not nearby then the best option is to provide expressed milk. For that a mother must necessarily learn all the Do's and Don'ts correctly and put into practice all that is feasible with a conscious and determined effort.

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SECTION - III

POPULATION GROWTH AND PROBLEMS

money and [illegible] respondent i.e. 100% respondents [illegible] feeding helps the child to be emotionally [illegible]. At the same time no body knows about [illegible] the milk bank.

CONCLUSION

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REFERENCE

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POPULATION EXPLOSION : A CHALLENGE FOR DEVELOPING NATIONS

Dr. A. CHIDAMBARALINGAM

Though the world population is increasing ever since the dawn of civilization, its increase is spectacular during the eastern countries. The global population has increased approximately four times during 1901 and 2000AD. Demographers have projected that world population will increase by 50 percent in the next five decades. The global population growth since 1900 AD is given in Table no : 1

Table No - 1
World Population Growth Since 1900

Year	Population in Billions
1900	1.6
1930	2.0
1960	3.0
1975	4.0
1987	5.0
2000	6.0
2025	7.9 (Projected)
2050	9.1(Projected)

The rate of population growth is not uniform in all regions and nations of the world. The population growth in many developing countries in Africa, Asia and Latin America are high due to higher birth rates and lower death rates. Demographers call the high and unprecedented growth of population experienced in these countries as "Population Explosion". The population explosion in developing countries leads to a variety of social, economic and environmental problems. In this paper, an attempt has been made to understand the population situation in ten largely populated countries of the world. The population situation in ten large populated countries is given in Table no:2

Since the population growth is not uniform and differential rate of population growth is experienced in different regions, the population is distributed not uniformly in various regions of the world. Approximately 80 per cent of the population is distributed in developing countries. Only 20 per cent of the population distributed in developed countries. Demographers have projected that the percentage of the population in developing countries will increase further. Nearly 75 per cent of the population is distributed in Asia and Africa. More than 85 percent of Asians and Africans are living in developing countries. Approximarely 60 percent of global population is distributed in ten countries. Among population of the ten countries 85 per cent of the population is distributed in developing countries.

Table No - 2
Population situation in top ten populated countries

S. No.	Countries	Population in crores	Percentage of Population
1	China	130.0	21.06
2	India	106.5	16.87
3	USA	29.4	4.63
4	Indonesia	22.7	3.49
5	Brazil	17.8	2.80
6	Pakistan	14.9	2.58
7	Bangladesh	14.7	2.53
8	Russia	14.6	2.50
9	Nigeria	13.4	1.84
10	Japan	12.8	1.75
	Total	376.8	59.5

The table above indicates that above 21.06% of the population is distributed in China, which is more than the population of all the developed nations. Indian and Indonesian population when put together is also more than the population of developed countries. The large size of the population of China. India and other developing countries is a major threat and challenge to their development. To understand this the annual rate of population increase, density of population, percentage of young population and percapita income etc of the above countries have been analyzed.

Table No. 3
Some demographic features of the ten large populated countries

S. No.	Countries	Annual rate of increase	Density of population	Percentageof young population	Percapita income	Infant mortality
1	China	0.6	136	22	1740	32
2	India	1.7	324	39	720	66
3	USA	0.6	31	13	43740	6.9
4	Indonesia	1.6	115	31	1280	46
5	Brazil	1.3	21	39	3460	33
6	Pakistan	2.7	193	42	690	91
7	Bangladesh	2.5	1019	40	470	66
8	Russia	-0.7	8	18	4460	15
9	Nigeria	2.8	134	44	560	75
10	Japan	0.6	338	14	38980	3
11	World	1.3	46	30	6987	55

ANNUAL RATE OF INCREASE

The table above indicates that the rate of population growth in the developed countries is very low. Among the

developing countries China also has recorded a low rate of population growth. India, Indonesia and Brazil are experiencing rapid population growth. Nigeria, Pakistan, and Bangladesh are experiencing explosive population growth.

DENSITY OF POPULATION

The population density in Russia, Brazil and USA are much lower than the world average. The remaining countries have very high density of population. Though Japan has a high density of population, it is not a threat since, the rate of population increase is very low. The high density of population leads to population pressure, low per capita income, decline in arable land etc. For instance China has 21% of population but it has 7% of arable land. Approximately 1 million hectares of arable land is decreasing in China every year.

YOUNG POPULATION

The percentage of young population is very low in USA, Japan and Russia. Among the developing countries China has low proportion of young population. The proportion of young population in developing countries is roughly three times higher than developed countries. The large proportion of young dependant population is responsible for low per capita income in developing countries.

PERCAPITA INCOME

The per capita income is one of the important indicators of economic development. The above table indicates that all the developed countries are having high per capita income. Among the developing countries Brazil has the highest income per capita. However it occupies only 74th place

among the world nations, China occupies 108th place, Indonesia 120th place, India occupies 137th place, Pakistan, Nigeria and Bangladesh respectively occupies 140th, 150th and 154th place.

INFANT MORTALITY AND MATERNAL MORTALITY

Infant mortality is also another important indicators of the development. All the developed countries have a very low infant mortality. Among the developing countries both in China and Brazil infant mortality has declined substantially. The level of infant mortality is very high in Pakistan, Nigeria, India and Bangladesh. Along with infant mortality maternal mortality is also very high in developing/over populated countries. The maternal mortality in India is 10 times higher than in China.

URBANIZATION

According to 'The Hindu' dated 18.10.2006 everyday 160000 people move from rural to urban areas. From China 14 million people move from rural areas to urban areas every year. In India it is 10 million people. It is estimated that in the next two decades, four hundred million Chinese and three hundred million Indians migrate to urban areas. It leads to over crowding, housing shortage and growth of slums in urban areas. The housing shortage in India is presently estimated as 152 millions (118 million in rural and 34 million in urban area). Since large number of houses are small, most of them are over crowded. It has also been estimated that 77 percent of the houses in rural areas and 71 percent of the houses in urban areas are over crowded.

ILLITERACY

Illiteracy is also another important problem in many developing - overpopulated country. India can boost that it has 650 million literate people. But it has more than 350 million illiterate mass. Recently UNICEF has said that India is the most illiterate country in the world. Youth illiteracy in India is 17 percent higher than China.

POVERTY

Poverty is another important social problem of many developing - overpopulated countries. Out of 5 million people living in developing countries, 1 billion (20%) of the people are living below poverty line.

MAL NUTRITION

Mal nutrition is another important problem affecting children and women in many developing/overpopulated countries. According to "The Hindu" dated 22.02.2007 through out the world 18000 children die every day. According to UNICEF the rate of mal-nutrition of children in India and Ethiopia are same. According to the third round of the national family health survey conducted in 25 states in 2005-2006 the rate of malnutrition in children below three years is 45.9% 45 million children in India are mal nourished or under weighed. The corresponding proportion in 1998-99 was 46.7%. Among the women of 15-49 age group the prevalence of anemia has risen from 51.8% in 1998-99 to 56.1% in 2005-06. Among the children aged 6-36 months nutritional anemia has risen from 74.2% in 1998-99 to 79% in 2005-06 (The Hindu dated 2.3.2007)

WATER SHORTAGE AND SANITATION

According to UNICEF more than a billion people in the developing world still lack access to clean drinking water and over 2.5 billion are without basic sanitation. Globally 10.5 million children under five die each year primarily due to the ill effects of unsafe or insufficient water.

Though a member of factors is responsible for the above -mentioned problems. The high rate of population growth (population explosion) is one of the most significant factors in many developing countries. Food, clothing and shelter are the three basic needs of man. In conclusion I say that the first and the third are still a dream for millions of people living in the developing countries.

ENVIRONMENT AND HEALTH IN INDIA

D. VICTORIYA
Dr. V.SETHURAMALINGAM

INTRODUCTION

India is the second most populous country in the world after China. India supports 16.87 percent of the world's population on its meager 2.4 percent world surface area of 135.79 million square kms. At the time of independence the country's population was 342 million. The country's population size had grown from 361 million in 1951 to around 846 million in 1991 and 1027 million in 2001. The population of India almost tripled during the period of 1951 - 2001. The phenomenal increase in the population during the last fifty years has led to rapid industrialization and high rate of urbanization which have created tremendous pressure on natural resources like land, air and water. The urban population has increased three and half times, from 62.4 million in 1951 to 217.6 million in 1991 and it again increased to 288 million in 2001. The percentage of urban population has increased from 17.28 percent in 1951 to 23.33 percent in 1981, 25.71 percent in 1991 and which further increased to 28 percent in 2001. The decadal growth rates of the population are irregular, as it increased from 13.31 percent in 1951 to 24.8 percent in 1971 and afterwards it marginally declined to 24.7 percent in 1981, 23.9 percent in 1991 and 21.34 percent in 2001. The urban

growth leads to an increase in the pollution levels and exposes population to serious environmental health hazards. Environmental pollution in urban areas is associated with excessive morbidity and morality. Overcrowding and inadequate housing contribute to pollution related diseases such as respiratory diseases, acute water borne diseases, tuberculosis, meningitis and various other diseases. Lack of opportunities for gainful employment in villages and the ecological stresses is leading to an ever - increasing movement of poor families to towns. Mega cities are emerging and urban slums are expanding. There has been three and half times increase in urban population over 1951 - 1991. During the past two decades of 1971 - 91, India's urban population has doubled from 109 million to 218 million and is estimated to reach 300 million by 2000 AD. Such rapid and unplanned expansion of cities has resulted in degradation of urban environment. It has widened the gap between demand and supply of infrastructure services such as energy, housing, transport, communication, education, water supply and sewerage and recreational activities, thus depleted the precious scarce environmental resource base of the cities. The result is the growing trend in air and water quality, generation of wastes and proliferation of slums and undesirable land use changes, all of which contribute to urban poverty.

Population growth is heralded as a major problem of India; it will determine to a large extent the living conditions of people for decades to come. This paper analyzes the interrelated issues of population growth stabilization, the magnitude of necessary efforts to provide basic essentials to the growing population, and the impact upon the environment.

Estimates of population projections are presented, based on the optimistic but probable assumption that India could reach reproductive level fertility in the period 2000 - 05. If sustained thereafter, the country's population would stabilize around the year 2100 at 1420 million people. In the mean time, the absolute increase of population in the next 2-3 decades will be greater than at present. The effect of population growth on cities and the living condition of the city dwellers is reviewed and it is pointed out that it is in developing countries where population growth is the primary force producing large urban centres. Population growth presents problems with respect to employment opportunities. The expected population growth will also have consequences on environmental deterioration and water supply contamination. Finally, progress on human development lines has been taking place in India, but achievements to date are uneven. It is stressed that a national concerted effort is required to achieve such goals.

INCREASE IN POPULATION

The phenomenon of galloping population in India has the following aspects:-

- Every sixth person on the globe today is an Indian, and by the turn of the century, every fifth living person will be an Indian.

- India adds 46,500 persons to its population every day.

- Addition to India's population is an equivalent of a Chandigarh (with 6,40,725 population) in nine days,

two Bhopals a month, and an Australia (with 18.52 million population) every months. During 1981 - 91, addition to the population was to the tune of 163 million, equaling to little less than the combined population of France (58.683 million), Britain (58.649 million) and Italy (57.369 million).

- By 2035, India would overtake China as the world's most populous nation. While the rate of annual population growth in India is 3.5 percent, in China it is 2.1 percent. Thus, while China's population would double in 60 years, India's population would double in 34 years.

- Around 49 percent of the increase in India's population in one decade is in the five state of Bihar, Madhya Pradesh, Assam, Rajasthan and Uttar Pradesh (known as BIMARU States)

- More than three times as many couples enter the reproductive span than those leaving it, with the fertility rate of the younger group being three times higher than that of those passing out of the reproductive range.

- At the present rate of growth, life for most Indians would be unbearable - medical facilities would be difficult to provide, expenses on education, housing etc., would be exorbitant, technical and professional education would become the exclusive prerogative of the elite, and the scarcity of food would once again plunge more than half of the nation below the poverty line.

CAUSES OF POPULATION GROWTH

After 1951, the growth of population is explained by a decline in mortality due to availability of curative and preventive medicines, control of families and epidemics, reduction of wars, and a large base population.

We may identify the following important causes for population explosion:

★ Widening Gap Between Birth and Death Rates
★ Low Age at Marriage
★ High Illiteracy
★ Religious Attitude Towards Family Planning
★ Other Causes :
 a) Joint family system and lack of responsibility of young couples in these families to bring up their children
 b) lack of recreational facilities
 c) lack of information or wrong information about the adverse effect of vasectomy, tubectomy and the loop and
 d) Poverty

EFFECTS OF POPULATION EXPLOSION

The growth of Population has a direct effect on the living standards of people. This is why, despite our spectacular progress in the agricultural and industrial spheres since independence, our per capita income has not risen appreciably.

It is estimated that 25 million people are homeless, 171 million people have no access to safe drinking water,

328.9 million adults are illiterate, 53 percent children below five years are underweight, and country as a whole has 135th position in the World Human Development Index. The appalling overcrowding of our cities has brought about a virtual breakdown of transportation, electricity and other services. It has also led to the rise of crime and an increase in violence in the urban and the semi - urban areas. All this has been directly fuelled by the addition of about 17 million people every year or an annual population growth rate of 2.14.

Enormous increase in population also results in (i) increased consumption of resources available in the environment and depletion of the same very quickly; (ii) due to over consumption of natural resources, the environment gets fully polluted; (iii) there will be desertification, deforestation, soil erosion, loss of fertility and poor productivity; (iv) mass poverty, poor per capita availability of food for consumption and prevalence of disease on a large scale (v) rapid urbanization resulting in growth of slums in cities and towns (vi) inefficient management and ineffective control at all levels leading to poor quality of life.

POVERTY

Poverty is said to be both cause and effect of environment degradation. The poor people, who rely on natural resources more than the rich, deplete natural resources faster as they have no real prospects of gaining access to other types of resources. Poorer people, who cannot meet their subsistence needs through purchase, are forced to use common property resources such as forests for food and fuel, pastures for fodder, and ponds and rivers for water. The poverty and rapid

population growth are found to coexist and thus seems to be reinforcing each other. It also contributes to environmental degradation through over exploitation of natural resources like land, air and water. The deterioration of natural resources and unsafe living condition affects the environment and health of the poor people.

DEFORESTATION

Forests are an important natural resource of India. They have moderate influence against floods and thus they protect the soil erosion. Forests also play an important role in enhancing the quality of environment by influencing the ecological balance and life support system. India has a forest cover of 76.52 million square kms. of recorded forest area, while only 63.34 million square kms. can be classified as actual forest cover. This accounts for 23.28 percent of total geographic area against 33 percent recommended by National Forest Policy of 1988. Per capita availability of forests in India is much lower than the world average. In the year 1997, as compared to 1993, the total forest cover has decreased by 6710 Sq.Kms. Continuing deforestation, therefore, has brought us face to face with a major ecological and socio - economic crisis.

LAND/SOIL DEGRADATION

Direct impacts of agricultural development on the environment arise from farming activities, which contribute to soil erosion, land salination and loss of nutrients. The spread of green revolution has been accompanied by over exploitation of land and water resources and use of fertilizers and pesticides and fertilizers have increased many folds. Shifting

cultivation has also been an important cause of land degradation. Extensive use of pesticides and fertilizers is an importance source of contamination of water bodies. Intensive agriculture and irrigation contribute to land degradation particularly salination, alkalization and water logging. It is evident that most of the land in the country is degrading, thus affecting the productive resource base of the economy. Out of the total geographical area of 328.7 million hectares, 175 million hectares are considered to be land - degraded area (Table 4). The increasing intensification and extensification also results in salination, alkalization and water logging in irrigated areas of the country. For achieving and maintaining food security, sustainable forestry agricultural and rural developments controlling of land/soil erosion is very much necessary.

ENVIRONMENTAL POLLUTION

The term Environmental Pollution refers to ways by which people pollute their surroundings. Air with gases and smoke, poison the water with chemicals and other substances, and damage the soil with too many fertilizers and pesticides. Also pollute the surroundings in various other ways. Environmental degradation is a result of the dynamic interplay of socio-economic, institutional and technological activities. Environmental changes may be driven by many factors including economic growth, population growth, urbanization, intensification of agriculture, rising energy use and transportation. Poverty still remains a problem at the root of several environmental problems.

AIR POLLUTION

The World Health Organization (WHO) defines air pollution as "Substances put into the air by the activity of mankind into concentrations sufficient to cause harmful effect to health, property, crop yield or to interfere with the enjoyment of property". Some of the most important air pollutants are suspended particulate matter (SPM) nitrogen oxides (Nox), carbon monoxide (CO). lead, sulphur dioxide (SO2) etc., (Table 5). The urban air pollution has grown across India in the last decade is alarming. The main factors accounts to urban air quality deterioration are growing industrialization and increasing vehicular pollution, industrial emissions, automobile exhaust and the burning of fossil fuels kills thousands of lives many more to suffer mainly from repiratory damage heart and lung diseases.

VEHICULAR POLLUTION

Transport activities have a wide variety of effects on the environment such as air pollution, noise from road traffic. Transport infrastructure in India has expanded considerably in terms of network and services. Thus road transport accounts for a major share of air pollution load in mega cities. In most urban areas of India, air pollution has worsened due to traffic congestion, poor housing, poor sanitation and drainage and garbage accumulation. The environmental effect of fuels like oil and petroleum products are of growing concern owing to increasing consumption levels. The increasing vehicles in country, the vehicle pollution has also increased and it accounts for a considerable share of vehicular pollution in India. The different factors are the types of engine used, the age of the vehicles, poor road conditions and con-

gested traffic. They add to air pollution in cities, which is a major cause of respiratory diseases. The principal vehicular pollutants are Carbon Monoxide, Oxides of Nitrogen, Hydrocarbons, suspended particulate matters, a varying amount of Sulphur Dioxide depending on the Sulphur content of the fuel and lead compounds. Table 6 presents the registered motor vehicles in India during 1950 - 51 to 1995 - 96.

As a result of urbanization in India pressure on urban transport is likely to increase substantially in this new millennium. It has been attempted to evaluate the future transport scenario to forecast the vehicle air pollution levels. Following are some of the points for due consideration:

- India is expected to have 51 metro cities by 2021
- The number of vehicles on Indian roads is estimated to increase by nine times by the true of the century out of which 65% to 70% shall be two wheelers or three wheelers.
- Urban transport demand is expected to grow by 2.6 times by 2016 at the existing model split in larger medium seized cities.
- At the existing model split, the urban air quality is expected to deteriorate faster in the 21st century, as two - wheeler population would be as high as 86.13% of the total vehicles used for passenger transportation.

POLLUTION FROM ENERGY PRODUCTION AND CONSUMPTION IN INDIA

The environmental effects due to increasing consumption levels of fuels like coal, lignite, oil and nuclear etc, are growing concern to various researches. The combustion of these fuels in industries has been a major source of pollution. Coal production through open cast mining; its supply to and consumption in power stations and industrial boilers leads to particulate and gaseous pollution which can cause pneumoconiosis, bronchitis and respiratory diseases. The energy production/ consumption in India during 1950 - 51 to 1995 - 96 is depicted in Table 7.

Thus increased population and increased per capita commercial energy use would worsen the national as well as global atmospheric pollution. An automobile exhaust accounts for a sizable part of pollution. Their effect on human health is particularly of concern. There is a strong correlation between average blood lead levels and the lead content is gasoline. Hydrocarbons present in the exhaust, particularly, in vehicles with poor combustion cause respiratory problems. Table 8 shows estimated annual episodes of illness and premature deaths due to ambient SPM in the air in four largest cities of India. It can be inferred from the table that both, the illness and premature deaths have risen significantly in less than five years. About 15 to 18 million children in developing countries are affected by high levels of lead in their blood, which could be the result of emissions from vehicle exhaust and are likely to suffer from related illness (kapoor, 1997).

WATER POLLUTION

Water is among the most essential requisites that nature has provided to sustain life on earth. About 80% of earth's surface are conversed by water. The deteriorating quality of water is creating various problems for the mankind. The growth in population, about 90 percent of which will occur in urban areas, will also increased the demand for water for domestic and industrial use and treatment of wastes. Water pollution from domestic and human wastewater is the main cause for much severe water borne diseases. The industrial water pollution is due to inadequate measures adopted in the industry for the abatement of pollution. Inadequate disposal of urban waste and open dumping of garbage contaminates surface and ground water.

The increasing river water pollution is the biggest threat to public health. The diseases commonly caused due to polluted water are cholera, diarrhoea, hepatitis, typhoid amoebic and bacillary, dysentery, guineaworm, whereas scabies, leprosy, trachoma and conjucvitis are some of the disease associated with water scarcity. All these could be attributed to the rapidly increasing population and lack of water resources. Inadequate access to safe drinking water and sanitation facilities leads to higher infant mortality and intestinal diseases.

SUMMARY AND CONCLUSION

Rapid population growth continues to be a matter of concern for the country as it has manifold effects, one of the most important being environment degradation. The outcomes of excessive population are industrialization and urbanization.

The study reveals that rapid population growth has led to the overexploitation of natural resources. The deforestation has led to the shrinking of forest cover, which eventually affects human health. The considerable magnitude of air pollution in the country also pulls up the number of people suffering from respiratory diseases an many a times leading to death and serious health hazards. The situation is also similar for water pollution, as both ground water and surface water contamination leads to various water borne discussed in this paper, it appears that if human being wants to exist on earth, there is now high times to give top priority to control pollution of all types for a healthy living. It can be said that even after fifty years of independence, India is unable to achieve the desirable standards of health for its population a consequences of environment degradation.

There is a need to control population growth in the country. Special efforts should be made for educating the general mass and local leaders about the adverse effects to large population through specially designed IEC (Information, Education and Communication) activities. In order to increase green cover and to preserve the existing forests, afforestation and social forestry programmes should be implemented at the local level. Further, measures to control air pollution should be intensified throughout the country. Wastewater treatment plants be established in accordance with the need of time and its usage should be encouraged. The heavy penalty should be imposed on industries disposing off the wastes into the river. Moreover, the landfills are to be properly managed to prevent ground water contamination. Since slums are one of the major sources of water pollution proper

measures should be taken to facilitate the slums with water and sanitation facilities. More emphasis should be laid on compulsory environmental education at the school level in order to make people aware of the environment protection. The environment protection should not be a responsibility of government alone but mass and local leaders should be encouraged to make dedicated efforts to eradicate the environmental problems.

To sum up, it may be emphasized that the environment is neither a free gift of environmental goods and services, not it can be through of as just a sink for depositing of waste products from houses, industries and other source. It is the need of time to protect environment for the present and future generation.

Table -1

Compound growth rate total

Year,	In millions	In percentage	In millions
1891 - 1921	236-251	0.19	15
1921-1951	251-406	1.22	110
1951-1981	406-683	2.15	322
1981-1991	683-844	2.11	161
1991-2001	844-1027	1.93	183

Source : Census of India, 2001

Table - 2
World population growth by groups

Country Group	Population (million)		% of total		Average Annual Growth Rate (%)	
	1980	2000	1980	2000	1980	2000
Low Income economics	1.384	2.459	31.3	50.9	2.4	2.0
Middle income economics	2.217	2.693	50.0	25.4	1.6	1.2
High Income economics	825	903	18.6	15.0	0.7	0.7
Total	4.426	6.055	100.0	100.0	1.7	1.4
India	687	1.016	15.5	16.7	2.1	1.8
China	981	1.261	22.2	20.8	1.5	1.1

Source : World Development Report, 2002

Table - 3
Selected demographic characteristics of the population of India, 1951 -2001

Year	Population (in millions)*	Decadal Growth Rate (%)	Urban Population (in million)*	% of Urban Population to total population	Density (Per Sq. Kms)*	% of below poverty line**
1951	361.1	13.31	62.4	17.28	117	54.88[1]
1961	439.2	21.64	78.9	17.96	142	51.32[2]
1971	548.2	24.80	109.1	19.90	177	44.48[3]
1981	683.3	24.66	159.4	23.33	210	38.86[4]
1991	846.3	23.86	217.6	25.71	267	35.97[5]
2001	1027	21.34	287.6	28	324	

Source : *Census of India, Provisional Population Totals, 2001
**Planning Commission Estimates refers to following Periods
[1]1973-74, [2]1977-78, [3]1983, [4]1987-88, [5]1993-94

Table - 4
Soil erosion and land degradation (million hectares)

1. Total Geographical Area	328.7
2. Area Subject to water and wind erosion Area	
Degraded through Special Problems	141.3
3. Water Logged Area	8.5
4. Alkali Soil	3.6

5.	Acid Soil	4.5
6.	Saline Soil including Coastal Sandy areas	5.5
7.	Ravines and Gullies	4
8.	Area subject to Shifting Cultivation	4
9.	Riverine and Torrents	2.7
	Total 3 to 9	33.7

Source: Economic Survey of India, 1998-99, Government of India.

Table - 5
Some major pollution, their sources and their related health hazards

Pollutant	Source	Effect on human health
Carbon Monoxide	Incomplete fuel combustion two-stroke equine)	Fatal in large does aggravates heart disorders effects central nervous system Impairs oxygen carrying capacity of blood
Sulphur dixide	Burning of sulphur containing fuel like coal in power plants and oil by vohicile Smoke from domestic, industrial and vehicular sources	Affects the functions of lungs

Suspended particulate matter Nitrogen Oxides	Fuel combustion in motor vehicles, power stations and furnaces	Small particulars are poisonous. They are carriers of carcinogenic tracer elements
Volatile hydrocarbons	Partial combustion of carbonaceous fuels (two stroke engines, industrial processes, disposal of solid wastes)	Affects the reparatory system, irritation of respiratory tract. Drowsiness, eye irritation, Coughing
Oxidants and ozone	Emissions from motor vehicles, photochemical reactions of nitrogen oxides and reactive hydrocarbons	Causes increased sensitivity to infections, lung diseases, irritation in eyes, nose and throat, risk asthmatics, children and those involved in heavy exercise.
Lead	Emissions from Motor vehicles	Nervous system slow down and brain development is retarded
Aldehydes	Chemicals	Irritation of eyes, nose, throat sneezing, coughing, nausea, breathing difficulties, carcinogenic in animals

Source : Compendium of Environment Statistics, 1998 and 1999

Table - 6
Registered motor vehicles in India (in thousands)

Year	Two Wheelers	Cars,	Trucks Jeeps and Taxis	Buses	All Vehicles
1950-51	27	159	82	34	306
1955-56	41	203	119	47	426
1960-61	88	310	168	57	665
1965-71	576	682	343	94	1865
1975-76	1045	779	351	115	2669
1980-81	2599	1147	542	159	5336
1985-86	6207	1758	848	223	10490
1990-91	14047	3013	1411	333	21310
1991-92	15026	3130	1425	341	22583
1992-93	15241	3194	1538	354	19973
1994-95	20831	3840	1793	423	30294
1995-96	23111	4189	1785	449	33557

Source : India Development Report, 1999-2000

Table - 7
Energy production / consumption in India, 1950-51 to 1995-96

Year	Coal & Lingnit (Mn Tons)	Petrolem products (Mn Tons)	Natural Gas	Electicity (Billion KWH)			
				Total	Thermal	Hydro	Nuclear
1950-51	32.2	3.3	NA	5.1	2.6	2.5	
1960-61	55.23	7.7	NA	16.9	9.1	7.8	
1970-71	76.34	17.9	0.65	55.8	28.2	25.2	2.4
1980-81	119.02	30.9	1.52	110.8	61.3	46.5	3
1990-91	225.5	55	12.77	264.3	186.5	71.7	6.1
. 1995-96	292.27	74.7	20.82	379.9	299.3	72.6	8

Source : CMIE, Energy, September, 1999, Economic Survey, 1998 -99, GOI

Table - 8

Estimates of annual episodes of illness and pre-mature deaths due to ambient suspended particulate matter (SPM) in the air by metro cities of india

Metro Cities	Annual Episdes of illness 1992		Annual pre-mature deaths		
			1991-92	1995	increase
Calcutta	3022786	5446225	5726	10647	4921
Chennai	462966	680241	863	1291	428
Delhi	3990012	5197018	7491	9859	2368
Mumbai	2579210	4005538	4477	7023	2546

Source : CMIE, Energy, September, 1999, Economic Survey, 1998-00, GOI

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SECTION - IV

NUTRITION AND HEALTH STATUS

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PREGNANCY AND NUTRITION - A STUDY

M. BUVANESWARI
Dr. C. SUBRAMANIAN

Nutritional diet is very important for human growth and development. At each and every stage of growth and development we need balanced amount of nutritious food, which help the full physical as well as good psychological development. This article is particularly dealt with nutritional status of antenatal women. The nutritional status of the antenatal women directly affect on the birth weight of baby. This fact has generated the nutritional supplementation component in all programmes related to maternal and child health activities of the country.

Maternal nutrition is often considered as an important regulator of human foetal growth. It is not only nutrition during present but also childhood nutrition of the women (reflected by maternal anthropometry) may influence obstetric outcome. Although it may seem obvious that human foetal malnutrition is the result of inappropriate delivery of nutritional state of the mother has not been identified previously. The factors of the nutrients of the mothers which affects the growth and development of foetus are mainly calories, pro-

tein, calcium and iron. Experiments with animals have shown that severe protein or caloric malnutrition during pregnancy delays foetal growth.

Thus it becomes imperative to know the antenatal nutritional status of the women. So that the foetal growth as well as the birth weight of the new born can be predicated. Further, it has also become obvious that many of the principal problems of perinatal medicine are prenatal in origin. Thus the need for special care of the expectant mothers can has been recognized. Successful pregnancy requires continuous adjustments in the maternal body composition, metabolism and the functions of various physiological systems. Maternal nutrition during pregnancy has a vital influence on the long - term health prospects of the foetus.

Pregnancy is a strain on the human body and nutrition plays an important role. Several important aspects of nutrition and dietary supplementation must be considered during pregnancy. A well balanced diet with increase in calories, proteins, vitamins and minerals is recommended.

Child bearing imposes both physical and mental strain on the body and mind and it is important that the would - be mother leads a healthy life during pregnancy. One of the major factors that promotes health and well being of both mother and baby in the womb is a wholesome nourishing diet. Eating well during pregnancy does not mean following a special diet or eating foods that are not ever tolerated. It does mean that attention needs to be paid to getting a good variety of foods

in the diet each day and that adequate calories from foods that are high in nutrition are consumed. Everyone wants to have a healthy baby and much of that depends on mother's good nutritional habits. The greatest gift a woman can give her developing baby is to eat a well- balanced diet everyday throughout her pregnancy. The better she eats; the better she will feel throughout her pregnancy. The nutrition lifeline flows between the pregnant woman and her baby, and it is important to ensure every child a healthy beginning.

Changes in nutritional needs in pregnancy appear to be related to the body's adaptation to pregnancy because the changes occur too early to be responding solely to foetal needs. Such changes include a reduction of electrolytes, proteins, glucose, vitamin B-12, folate, vitamin B-6, and a rise in lipids, triglycerides, and cholesterol in blood. Pregnant women require different amounts of iron, folic acid, sodium, and sugar intake. The consequences of maternal malnourishment may include health problems for the mother and an infant of low birth weight who may have nutritional and other deficiencies.

Pregnancy demands an extra 150 calories per day in the first trimester, an extra 350 calories per day in the next trimester and much more during breast - feeding. Pregnant women need sufficient amount of calcium; insufficiency of calcium lead to poor development of pelvic bones resulting in difficult childbirth due to obstructed labour. Insufficiency of iodine in an already deficient mother can result in poor foetal brain development, which leads to the birth of deaf -

mutes, mentally abnormal children and defects in coordination and movement. Studies reveal that women continue hard physical labor till the last stage of pregnancy, in addition to their household chores. Working beyond the limits of physical tolerance, their bodies are depleted of essential resources, thus resulting in foetal wastage and low birth weight babies.

Pregnant women should increase their usual servings of a variety of foods from the basic food groups to include a total of four or more servings each of fruits and vegetables, of whole grain or enriched bread and cereal, and milk and milk products. In addition, three or more servings of meat, poultry, fish, eggs, nuts, and dried beans and peas are also required for a pregnant women consists of all essential nutrients. Healthy recipes are also recommended during pregnancy which provides essential nutrients such as Vit B12, iron and folic acids.

NUTRITIONAL STATUS DURING PREGNANCY

Maternal nutrition is often considered as an important regulator of human foetal growth. It is not only nutrition during pregnancy but also childhood nutrition of the women that may influence obstetric outcome. The factors of the nutrients of the mothers, which affects the growth, and development of foetus are mainly calories, proteins, calcium, iron and vitamins. Apart from diet, several other poverty -associated factors such as chronic infections, parasitic infestations leading to intestinal malabsorption, and closely spaced pregnancies also adversely affect maternal nutrition status. A woman whose diet is adequate will bear a viable infant who enters life in good physical and mental health.

IRON STATUS AND ANAEMIA IN PREGNANCY

Anaemia is the most common medical disorder associated with pregnancy, where its incidence is as high as 40% - 80% in a developing country like India. Any pregnant women having haemoglobin level less than 10gm% is said to suffer from anaemia. Anaemia is mostly caused due to iron deficiency, which is associated with several functional impairments. Anaemia may also predispose pregnant women to higher morbidity affecting their quality of life and the birth weight of their newborns.

BELIEFS AND PRACTICES DURING PREGNANCY

There are, mostly based on superstition, certain restrictions regarding eating certain foods such as eating raw papaya, bitter herbs, like neem or bitter gourd, which are believed to cause abortion, deformity or death of the foetus. The other beliefs include many things such as not going in front of dead bodies, not seeing the face of sterile mothers, not seeing the face of a widow and similar ther beliefs.

ADOLESCENCE AND PREGNANCY

Human reproduction in the adolescents is a topic of increasing concern to obstetricians, Pediatricians, and other health care professionals. Pregnancy in the teenage woman (between 13 to 19 years) is especially distressing because frequently she demonstrates a variety of serious health and social problems. Numerous studies have shown that poor outcomes of pregnancy (low birth weight, High mortality, anaemia, toxemia and perinatal loss) are more frequent among teenagers than among adult women.

Maternal age is an important factor in determination of obstetric outcome of pregnancy. Teenage mothers appear to be at a higher risk during child bearing with poor obstetric outcome and require better obstetric and neonatal care. It is thought that teenage pregnancies are at higher risk for adverse outcome for mother and baby. The major complications in young mothers are high blood pressure, iron deficiency anaemia, cephalopelvic disproportion and low birth weight babies.

SUBSTANCE ABUSE DURING PREGNANCY

Smoking and tobacco habit in pregnancy is very harmful to both the foetus and the mother. Pregnant women consuming tobacco generally have high incidence of low birth weight (LBW) babies. Many compounds have been identified in tobacco to affecte foetal parameters. Tobacco consumption or consuming some amount of alcohol is considered to be harmful to the foetus and may cause malformations in the foetus.

As the researcher wanted to conduct the study about the same, 30 antenatal women were identified who have attended AN clinic Govt. Hospital - Kumbakonam at Thanjavur Dt, for studying about their nutritional awareness. An interview schedule covering the personal data, economic conditions, obstetric history, awareness about nutrients and nutritional foods taken by the respondents were administered.

OBJECTIVES

1. To find out the general awareness about the antenatal woman regarding nutrients and nutritional foods.

2. To give suitable recommendations to avoid malnutrition.

MAIN FINDINGS

The majority of the respondents (60%) belong to the age group of 18 to 23 years. The majority of the respondents (76%) are completed primary education. 24% of the respondents are completed secondary education. The majority (64%) of the respondents are daily laborers, 36% of the respondents are housewives.

More than half (56%) of the respondents are knowing about nutritional foods and less than half (44%) of the respondents are not aware of nutritional foods.

Less than half (44%) of the respondents are aware of carbohydrates, proteins, fats, minerals and (66%) of the respondents are not aware of above basic nutrients and its functions in our body.

More than half of (56%) of the respondents are aware of iron rich foods are essential for pregnant mother.

66% of respondents checkup antenatal clinic in every 15 days once and 60% of the respondents are availed of folic acid and calcium tablets.

68% of the respondents are having special attention to antenatal period.

64% of the respondents are getting nutritional support through Anganwadies.

96% of the respondents suggested that the Govt. Hospital should give special care and attention to pregnant mothers.

SUGGESTIONS

1. The government may take initiation to impart knowledge on nutrients, nutritional foods and its preparation method.

2. By conducting awareness camp by government and NGOs on nutritional deficiency disease and its impact will promote the health of antenatal mother.

CONCLUSION

The main conclusion drawn from the present study is that the majority of the respondents are not aware of nutrients and nutritional foods because of poor education and economic condition which is the main cause for a low intake of food ingredients was found to be the lower literacy rate of the villages particularly that of women as well as ignorance. Thus nutrition education and demonstration need to be rendered to all women through orientation training of regular intervals.

SECTION - V

PREVENTION OF STI, HIV/AIDS

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AN EXPERIENCE IN THE FIELD OF HIV/ AIDS AMONG COMMERCIAL SEX WORKERS

S. SATHIA
Dr. V. SETHURAMALINGAM

INTRODUCTION

Prostitution in various forms has existed from earlier times. It is depended on the economic, social and sexual values of a society. It has been secular or under the guise of religion. In some societies prostitution have had low social status and a restricted future, because their sexual service was disapproved. And considered a stigma.

MEANING OF PROSTITUTION

The word 'prostitute' has been derived from the Latin word prostibula or proseda. The houses of ancient Greek harlots were allowed to be opened in the afternoon. The girl stood or sat before the lupanaria to attract and entice the passersby. Therefore, they were called prostitbula or proseda.

According to the International Encyclopedia of Social science, "prostitution is the granting of sexual access on a relatively indiscriminate basis for payment either in money or in goods depending on the complexity of the local economic system. Payment is acknowledged to be for a specific sexual performance.

HISTORY OF PROSTITUTION IN TAMILNADU

Prostitution is considered as the oldest profession in the world. It exists ever since human history is recorded. From ancient times, female prostitution in Tamil Nadu was closely related to religious practices. Religion ultimately institutionalized it as "Devadasi system". In Tamilnadu prostitution was concentrated in big temple complexes. In places like Trichy, Madurai, Chidambaram and Tanjavur, Devadasi system intertwined with the religious like of people and got institutionalized with religious fervor.

Young girls were dedicated to the Hindu Gods and Goddesses. This initiation ceremony was popularly known as "Pottukattuthal" which meant the girls were married to a God or devas. Therefore these girls have no right to marry other men legally.

These girls were also expected to get well versed in classical dance and music and performed concerts on auspicious occasions at the temple. In addition, they provided sexual services to the worshippers in the temple. These girls who lived in the temple or temple premises also commended great respect in the community. These were called Devadasis or Devar Adiyars, which meant that they were dedicated to God. Their sexual practices were not stigmatized by the community. It was believed that having sex with a Devadasi was not a sin.

Besides providing license to prostitution with religious sanction, the Devadasi system made the women believe that they were doing service to the God or Goddess. They were accepted by other castes too and were invited to their

houses on auspicious days. Due to urbanization, the devadasi system has undergone changes and in due course was abandoned by introduction of Suppression of Immoral Traffic Act (SITA) in the year 1956. Though the system collapsed, the sex trade continued in a clandestine manner.

MAGNITUDE OF THE PROSTITUTION IN TAMILNADU

There are 81,124 commercial sex workers are involved in commercial activities at various districts in Tamilnadu as per the Tamilnadu State AIDS Control 2004.

S. No.	District	Total estimated CSWs
1.	Chennai	18,809
2.	Coimbatore	1,560
3.	Cuddalore	469
4.	Dharmapuri	4,434
5.	Dindigul	818
6.	Erode	1,200
7.	Kanchipuram	2,282
8.	Kanniyakumari	8,434
9.	Karur	434
10.	Madurai	15,644
11.	Nagapattinam	485
12.	Namakkal	1,400

13.	Nilgiri	420
14.	Ariyalur	383
15.	Puddukottai	328
16.	Ramanathapuram	162
17.	Salem	5,107
18.	Sivaganga	1,100
19.	Thanjavur	782
20.	Theni	1,350
21.	Trichy	4,290
22.	Tiruvellore	2,268
23.	Tirunelveli	1,258
24.	Thiruvannamalai	635
25.	Thiruvarur	253
26.	Tuticorin	3,428
27.	Vellore	1,234
28.	Villupuram	772
29.	Virudunagar	1,387
	Total	81,124

EXPERIENCE WITH COMMERCIAL SEX WORKERS

In the experience of the author it was found that the CSWs chose their profession mainly due to the direct and indirect motivation from their family situation i.e. poverty.

They got into this profession through their peers, brokers and pimps. Another reason for choosing this profession, according to them, is to earn easy money without any kind of investment and hard work. Most of the full time sex workers do not consider their job as immoral one. Many are working without the knowledge of their family members or neighbours. Also, they firmly believe that if their occupation is exposed to their children, the children's future will get spoiled and hence, prefer not to tell them anything about their job.

It was also found that caste is not a disparity among the CSWs. When looking into their income, they earn about Rs.1500 - 2000 per month. On an average they charge Rs.50 - 100 onwards and see three or four customers in a day.

Regarding the safety measures and precautions, majority of them are well aware of the risks involved and use condoms regularly but they don't use them properly. Another fact is that many of them are street based sex workers and they are grouped as high risk ones. It was found that majority of them are affected by STD and almost every one is aware of the risks involving HIV/AIDS.

When looking into the counselling aspect, most of them find the counselling sessions very helpful and useful. They feel easy and comfortable when sharing their feelings, problems, personal life and physical illness with the counsellor. In fact, they prefer sitting with a counsellor to a doctor. But some of the CSWs consider the sessions less fruitful and waste of time and hence, were uninterested to seek the help of counsellor.

The researcher, as a conunsellor primarily aimed to make behavioural changes. The CSWs were counseled to practice safe sex and maintain health seeking behaviour. The health seeking behaviour include regular medical check up, partner treatment, voluntary visit to the clinic for physical illness, saving money for future, developing helping tendency, peer group awareness, self - hygiene and skill development (based on their choice of interest). The CSWs, who were interested were formed into a group and got skills development training.

CONCLUSION

The finding of the researcher found that though the CSWs aware that prostitution is a high risk profession they don't want to leave due to the mode of income and the compulsion of rowdy elements who have contact with the CSWs.

It is suggested that these CSWs should be motivated in terms of caring of their children and their future so that they can come out from this profession and necessary rehabilitation programmes must be introduced for her self employment ventures through the liberal bank loan credit from the nationalized bank.

AWARENESS ON STI AND HIV/AIDS PERCEIVED BY COMMERCIAL SEX WORKERS

Dr. J. GODWIN PREM SINGH
K. PARTHASRATHY

INTRODUCTION

The modern-day slave trade is a multidimensional threat to all nations. In addition to the individual misery wrought by this human rights abuse, its connection to organized crime and grave security threats such as drug and weapons trafficking is becoming clearer. So is the connection to serious public health concerns, as victims contract illnesses and diseases, whether from poor living conditions or from forced sex, and are trafficked into new communities (Dutt, 2002). A country that elects to downplay its human trafficking problem in favor of other pressing concerns does so at its peril. Immediate action is desperately needed. Victims of human trafficking pay a horrible price. Physical and psychological harm, including disease and stunted growth, often has permanent effects, ostracizing trafficking victims from their families and communities. Trafficking victims often miss critical opportunities for social, moral, and spiritual development (Kannappan, 2003). In many cases the exploitation of trafficking victims is progressive: a child trafficked into one form of labor may be further abused in another. In Nepal,

girls recruited to work in carpet factories, hotels, and restaurants have been forced later into the sex industry in India. In the Philippines, and in many other countries, children who initially migrate or recruited for the hotel and tourism industry, often end up trapped in brothels. A brutal reality of the modern-day slave trade is that its victims are all too often bought and sold many times over (Vanwesenbeek, 1994)

Victims forced into sex slavery are often subdued with drugs and suffer extreme violence. Victims trafficked for sexual exploitation suffers physical and emotional damage from premature sexual activity, forced substance abuse, and exposure to sexually transmitted infections including HIV/AIDS (Jefferys, 1977). Some victims suffer permanent damage to their reproductive organs. Moreover, the victim is typically trafficked to a location where he or she cannot speak or understand the language, compounding the psychological damage from isolation and domination. Ironically, the human capacity to endure unspeakable hardship and deprivation leads many trapped victims to continue to work, hoping for eventual freedom (Beedi, 1990). Trafficking Promotes Social Breakdown. The loss of family and community support networks renders the trafficking victim vulnerable to the traffickers' demands and threats, and contributes in several ways to the breakdown of social structures. Trafficking tears children from their parents and extended family, preventing their nurturing and moral development. Trafficking interrupts the passage of knowledge and cultural values from parent to child and from generation to generation, weakening a core pillar of society (Elaner, 1995). The profits from trafficking often allow the practice to take root in a particular community, which is then repeatedly exploited as a ready source of victims. The

danger of becoming a trafficking victim can lead vulnerable groups such as children and young women to go into hiding, with adverse effects on their schooling or family structure. The loss of education reduces victims' future economic opportunities and increases their vulnerability to their communities often find themselves stigmatized and ostracized, and require continuing social services. They are more likely to become involved in substance abuse and criminal activity (James, 2001).

Trafficking Undermines Public Health. Victims of trafficking often endure brutal conditions that result in physical, sexual and psychological trauma. Sexually transmitted infections, pelvic inflammatory disease, and HIV/AIDS are often the result of forced prostituion. Anxiety, insomnia, depression and post-traumatic stress disorder are common psychological manifestations among trafficked victims (Mennda, 1999). Unsanitary and crowded living conditions, coupled with poor nutrition, foster a host of adverse health conditions such as scabies, tuberculosis, and other communicable diseases. Children suffer growth and development problems and develop complex psychological and neurological consequences from deprivation and trauma. There are many different causes of human trafficking. These causes are complex and often reinforce each other (Baldwin, 1999). Viewing trafficking in persons as a global market, victims constitute the supply, and abusive employers or sexual exploiters represent the demand. The supply of victims is encouraged by many factors including poverty, the attraction of a perceived higher standard of living elsewhere, weak social and economic structures, a lack of employment opportunities, organized crime, violence against women and children, discrimination against women,

government corruption, political instability, armed conflict, and cultural traditions such as traditional slavery (Vanwesenbeek, 1994). In some societies a tradition of fostering allows the third or fourth child to be sent to live and work in an urban center with a member of the extended family (often, an uncle), in exchange for a promise of education and instruction in a trade. Taking advantage of this tradition, traffickers often position themselves as employment agents, inducing parents to part with a child, but then trafficking the child to work in prostitution, domestic servitude, or a commercial enterprise. In the end, the family receives few any wage remittances, the child remains unschooled and untrained, and separated from his family, and the hoped-for economic opportunity never materializes (Kingsecy, 2003).

Local, state, national, and regional programs to fight trafficking must be coordinated. By drawing public attention to the problem, Governments can increase antitrafficking resource allocations, improve understanding of the problem, and enhance their ability to develop effective strategies. Coordination and cooperation, whether national, bilateral, or regional, will leverage country efforts and recruit volunteers to the fight. International standards should be harmonized, and nations should cooperate more closely to deny traffickers legal sanctuary (Chattergee, 1990). Knowledge about trafficking must be improved, and the network of anti-trafficking organizations and efforts strengthened. Religious institutions, NGOs, Schools, community associations, and traditional leaders need to be mobilized in the struggle. Victims and their families require skills training and alternative economic opportunities. Anti-trafficking strategies must be periodically examined to ensure they remain innovative and affective. Fi-

nally, government officials must be trained in anti-trafficking techniques, and trafficking flows must be tracked statistically to illuminate the nature and magnitude of the problem so that it may be better understood (Mukkergee, 2002).

FEMALE PROSTITUTION AND HIV

India has had a sharp increase in the estimated number of Acquired Immunodeficiency Syndrome (AIDS) infections, from a few thousand in the early 1990's to an estimated 3.8 million children and adults living with AIDS in 2001 (Beldwin, 1999). This is particularly worrisome since India is home to a population of over 900 million. Both married and unmarried men visiting sex workers in both rural and urban areas fuel this epidemic and although prostitution is not the only source, it is the center of the spread of AIDS in India (James, 2001). Female sex workers (FSWs), or prostitutes, are the group highest at risk for receiving and transmitting HIV/AIDS. These women usually come from poor regions and lack in education needed for career opportunities. This lack of education and resources is the main cause of the young women becoming prostitues. In a recent study performed by the National AIDS Control Programme, it was concluded that more than half of FSWs are ages 20 to 29 years and that sixty-one percent are illiterate. This survey also showed that almost all FSWs were aware of AIDS but many didn't have adequate information on prevention and risk of transmission (Kannappan, 2003). It is obvious that India's large population and number of high risk groups have led to the AIDS epidemic that the country is now faced with. The efforts of the government and its partner organizations have proved not completely successful and are not enough to stop AIDS from spreading further. Only through international cooperation and co-ordination have

had AIDS free future (Jfferys, 1997). It is the goal of this committee to create a reasonable and attainable solution to India's problem with AIDS due to prostitution. All countries must work together to form a plan to reduce the spread of AIDS and care for those already suffering in India. The following brief introductions outline the problems of female and male health and the spread of HIV/AIDS in India (Vanwesenbeek, 1994)

There are believed to be about 20 lakh prostitutes distributed over 817 red-light areas in different parts of Inida (Mukkergee, 2002). A large number of these prostitutes and call-girls are infected with HIV who passes on the infection to their customers (Menndal, 1999). According to one estimate, the level of HIV infection escalated from one percent to 30 percent among prostitutes in Mumbai in just three years-from 1989 to 1991(Mukkergee, 2002). There is also a view that prostitutes are at a lower risk of infecting their clients and at a risk of getting infected by them. Therefore, along with targeting the preventive programmes to prostitutes they should also cover their clients (Parkins, 1991). Heterosexual prostitution is also one of the main areas in which HIV/AIDS is spread on the subcontinent, widely through women and girls who are forced into prostituion. Roughly 50% of female sex workers in Mumbai are HIV positive. Many of them are from Nepal, sold into prostitution by their families, and sent to work against their will in Indian brothels (Menndal, 1999). The combined factors of poverty, misogyny, lack of education and poor healthcare add up to an alarming rate of HIV infection among Indian sex workers and women and women in general. Recently, the Western media has paid a great deal of attention to the issue of prostitution and trafficking in In-

dia and many international women's groups have begun to do significant work on the issue (Chatterjee, 1990).

STATUS OF COMMERCIAL SEX WORKERS IN KERALA

Sex trade in Kerala is carried out on individual basis as well as in organized form. In organized sex trade, it is under the control of racketeers. Here, sex work takes place in lodges, secluded houses and big hotels (Kanappan, 2003). In rural areas individual women are involved in sex trade and it is home based. Street sex workers work independently, but they are at the mercy of criminal gang. Most of them do not have houses and they are the most vulnerable. They are concentrated in cities, towns, and vicinities of pilgrim centers. Even if they seen independent and to have chosen their profession by themselves, each one has a personal history of coercion, exploitation or psychological torture which led them to this field (Mukkerjee, 2002). Once they enter into the trade, they are trapped as if amidst the tentacles of an octopus. They hardly escape from the insecure and vulnerable situation and are aften subjected to physical and psychological torture. In Kerala, the situation is still worse. Sex workers suffer from different forms of torture from different sectors. These women undergo torture in custody and public places. Beating with sharp objects, kicking, hitting with heavy objects, burning with cigarettes, cutting hair and psychological torture are very common. They are beaten up in the roadside even when they are asleep. They do not have any protection from criminals (Dutt, 2002).

The sex workers are always at risk of being abused and tortured by the clients. This usually happens when clients take

them to rooms under the control of the later. This can lead to different forms of torture varying from coercive sex to murder. Gang rape can happen even when a client takes a woman after fixing the rate and conditions. Sometimes they would take revenge upon women, if they resisted in the past (Menndal, 1999). Many women complain that they are forced to have oral sex, which they do not like. If they resist they will be tortured. These women are invisible in society because of the gravity of ostracisation. Everybody knows that they exist and their services are utilized. But the public space is denied to them. They are discriminated even in the health care institutions. When they are admitted with severe wounds after torture, those are not registered in the medical records. Their children are either not allowed entering into schools or are discriminated after entry. Most of them do not have ration cards and identity cards for election. Even after getting out of this work, the stigma continues. People do not accept them in social life (Parkins, 1991)

ROLE OF VOLUNTARY ORGANIZATION IN PREVENTION OF STI AND HIV/AIDS

The task being gigantic and the work that needs to be done for the patients infected with HIV or suffering from AIDS for many years being unprecedented in terms of scale and efforts, Government alone cannot be expected to take up the total control programme (Kingsecy, 2003). Voluntary Organization too, has to be involved in behaviour change programme. The world Health Organization also emphasized its need. But it appears that at present, the Voluntary Organizations are unwilling and consider them unable to respond to this need of associating themselves with efforts to contain

AIDS (Jefferys, 1997). The NGO's had responsibility to impart knowledge to prostitute women for safe sex will create an environment in which these women can make choices and act on them. The capacity to motivate and sustain the involvement of the vulnerable people will determine the success of the voluntary organizations. After being infected with virus, the need for psychological and social support is as crucial as medical support and non-government organizations can easily provide these services. The voluntary organization can surely make genuine effort towards this support system. Besides helping the patients, the voluntary organizations can also help the children, families and other dependents of the sufferers who become victims of isolation and discrimination (Parkins, 1991).

OBJECTIVES OF THE STUDY

1. To study the socio-demographic characteristics of the Commercial Sex Workers.
2. To find out the level of awareness on STIs and HIV/AIDS among the Commercial Sex Workers.
3. To find out association between the socio-demographic factors with regard to various dimensions of STIs and HIV/AIDS.

RESEARCH DESIGN AND SAMPLING

The universe of the present study was Commercial Sex Workers at Vikoam Taluk, Kottayam District of Kerala State. The researcher had selected 70 respondents through snow ball sampling technique. This study was descriptive in nature as it described the various characteristics of the Commercial Sex Workers and find out their level of knowledge about STI, HIV/AIDS. The researchers used an interview schedule which cov-

ered areas such as personal information, knowledge about STI, HIV/AIDS. Data was colleted through personal interviews. The data were carefully analyzed and processed, statistical tests such as 't' test, 'F' test and Karl Pearson's co-efficient of correlation were applied to interpret the data to draw meaningful inferences.

ANALYSIS AND INTERPRETATION

SOCIO DEMOGRAPHIC CHARACTERISTICS

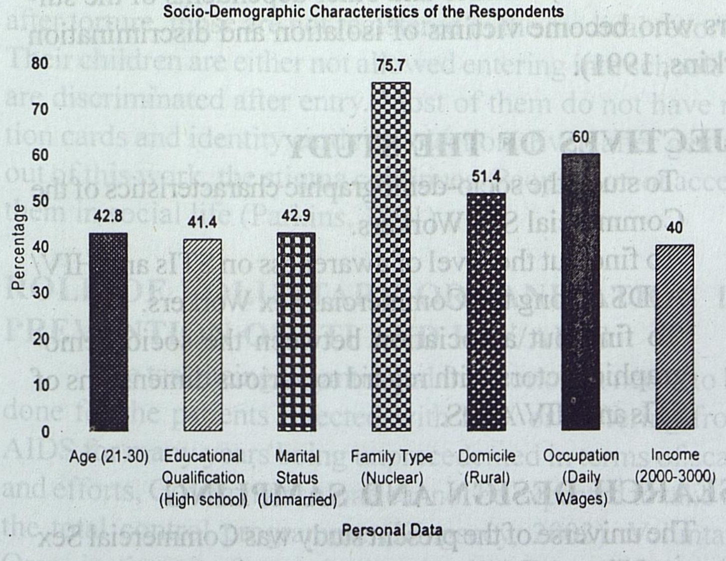

Fig. 1: Socio-demographic characteristics of the respondents

The fig. 1 bar diagram shows that majority of the respondent belong to the age group of 21-30 years, and nearly

half of the respondents were complete higher secondary. Further, most of the respondents were unmarried and most of them were living in nuclear family system with medium size families (members between 3-4). The economic status, majority of the respondents belong to the income group of Rs. 2001-3000 per month. They feel unsecured and dissatisfied with their need fulfillment. It is also one of the reasons to force them to be involved in the prostitution.

SOURCES OF KNOWLEDGE ABOUT HIV/ AIDS

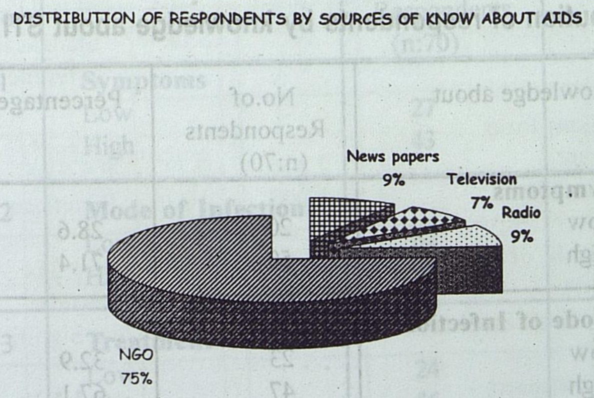

Fig. 2: sources of knowledge about HIV/AIDS

The fig. 2 pie diagram shows that majority of the respondents had knowledge about AIDS like symptoms, mode of transmission, and prevention technique through NGO's than other mass media. The greatest need is to educate people to

have 'safe sex' by using condoms and avoiding multiple sexual partners. This could be done through TV, radio, newspapers and other mass media. Health Care Centers can be set up in or near red light areas, which would provide immunization, primary health care, first aid, health Tuberculosis, STI, HIV/ AIDS education, gynecological care facilities, free contraception and counseling. The timings of these centers should be convenient to the women & child victims of STI, HIV/AIDS. These could be set up by State Government or by NGOs with assistance from the Central/State Governments.

Table - 1
Distribution of respondents by knowledge about STI

S. No.	Knowledge about	No.of Respondents (n:70)	Percentage
1	**Symptoms**		
	Low	20	28.6
	High	50	71.4
2	**Mode of Infection**		
	Low	23	32.9
	High	47	67.1
3	**Treatment**		
	Low	22	31.4
	High	48	68.6
4	**Overall**		
	Low	34	48.6
	High	36	51.4

It portrays from table 1 that majority of the respondents had high level of knowledge about symptoms, mode of

infection and treatment of STI. This table conclude that majority of the respondents possessed knowledge on sexual transmit diseases through non-governmental organizations. Health cards to be issued to women and child who are victims of STI and AIDS ensuring them free medical treatment, provision of adequate drugs and medications in the Government hospitals.

Table - 2

Distribution of respondents by knowledge about HIV/AIDS

S. No.	Knowledge about	No.of Respondents (n:70)	Percentage
1	**Symptoms**		
	Low	27	38.6
	High	43	61.4
2	**Mode of Infection**		
	Low	32	45.7
	High	38	54.3
3	**Treatment**		
	Low	24	34.3
	High	46	65.7
4	**Overall**		
	Low	33	47.1
	High	37	52.9

It is explicit from table 2 that majority of the respondents had high level of knowledge about symptoms, mode of

infection and treatment of HIV/AIDS. Women victims suffering from terminal stages of HIV/AIDS would require separate shelter homes to be set up in major cities. NGOs and charitable organizations would be assisted by the National Aids Control Organization to set up such homes. Local communities, NGOs and other interested individuals would be mobilized and encouraged to be involved in, identification, rescue and rehabilitation of women and child victims of HIV/AIDS.

Table - 3

't' test between the respondents type of family with regard to knowledge about HIV/AIDS

S. No.	Type of Family	X	S.D.	Statistical Inference
1	**Symptoms**			t = 2.507
	Joint	2.176	0.727	P < 0.05
	Nuclear	3.000	1.286	Significant
2	**Mode of Infection**			t = 1.214
	Joint	2.176	1.014	P < 0.05
	Nuclear	2.547	1.119	Not Significant
3	**Treatment**			t = 4.760
	Joint	1.647	1.271	P < 0.01
	Nuclear	3.415	1.350	Significant
4	**Overall**			t = 3.814
	Joint	6.000	2.179	P < 0.01
	Nuclear	8.962	2.948	Significant

It is inferred from table 3 that there is a significant difference between type of family of the respondents with

regard to symptoms, treatment and overall knowledge about HIV/AIDS. Further the mean score indicate that knowledge on HIV/AIDS influenced by the type of family of the respondents.

Table - 4
One way analysis of variance among various educational qualification of the respondents with regard to knowledge about STI

S. No.	Source	Df	SS	MS	X	Statistical Inference
1	**Symptoms**					
	Between Groups	3	13.721	4.574	G1=1.250	F=2.854
	Within Groups	66	105.765	1.602	G2=2.666	P<0.05
					G3=2.034	Significant
					G4=2.352	
2	**Mode of Infection**					
	Between Groups	3	4.810	1.603	G1=2.166	F=2.579
	Within Groups	66	105.765	1.602	G2=2.833	P<0.05
					G3=2.793	Significant
					G4=2.941	
3	**Treatment**					
	Between Groups	3	8.521	2.840	G1=1.250	F=3.261
	Within Groups	66	105.765	1.602	G2=2.000	P<0.01
					G3=2.206	Significant
					G4=2.176	
4	**Overall**					
	Between Groups	3	69.718	23.239	G1=4.666	F=5.031
	Within Groups	66	105.765	1.602	G2=7.500	P<0.05
					G3=7.034	Significant
					G4=7.470	

G1= Primary G2= Secondary G3= High School
G4= Graduate

It is inferred from table, 4 that there is a significant variance among the educational qualifications of the respondents with regard to symptoms, mode of infection and treatment of STI. It is clearly indicated that educational qualification of the respondents has little influence knowledge about STI experienced by respondents.

Table - 5
Karl pearson's co-efficient of correlation between the respondents age and knowledge about STI

S. No.	Variable	Correlation Value	Statistical Inference
1	Age and symptoms	-0.335	P< 0.01 Significant
2	Age and mode of infection	-0.171	P > 0.05 Not Significant
3	Age and treatment	-0.338	P < 0.01 Significant
4	Age and overall knowledge about STD	-0.391	P < 0.01 Significant

It is inferred from table 5 that there is a significant negative relationship between the age of the respondents with regarded to symptoms, treatment and overall knowledge about STI. Further this table explicit that age has little influence knowledge of STI experienced by respondents.

Table - 6
Karl Pearson's co-efficient of correlation between the respondent's age and knowledge about HIV/AIDS

S. No.	Variable	Correlation Value	Statistical Inference
1	Age and symptoms	-0.291	$P < 0.01$ Significant
2	Age and mode of spread	-0.299	$P > 0.01$ Not Significant
3	Age and treatment	-0.408	$P < 0.01$ Significant
4	Age and overall knowledge about HIV/AIDS	-0.429	$P < 0.01$ Significant

It is inferred from table 6 that there is a significant negative relationship between the age of the respondents with regard to knowledge of HIV/AIDS like symptoms, mode of the spread, treatment and overall knowledge of AIDS. It is clearly indicated that age has little influence knowledge about HIV/AIDS experienced by respondents.

Table - 7
Association between monthly income of the respondents and knowledge about HIV/AIDS

S. No.	Monthly Incom	Knowledge about HIV/AIDS		Statistical Inference
		Low	High	
1	Symptoms	**n :27**	**n :43**	
	Rs. 1000 – 3000	13	9	$X^2 = 9.470$
	Rs. 3001 – 5000	9	19	df = 3
	Rs. 5001 - 7000	0	8	$P < 0.05$
	Above Rs. 7000	5	7	Significant
2	Mode of Spread	**n :32**	**n :38**	
	Rs. 1000 – 3000	13	9	$X^2 = 3.716$
	Rs. 3001 – 5000	13	15	df = 3
	Rs. 5001 - 7000	2	6	$P < 0.05$
	Above Rs. 7000	4	8	Not Significant
3	Treatment	**n :24**	**n :46**	
	Rs. 1000 – 3000	9	13	$X^2 = 4.918$
	Rs. 3001 – 5000	11	17	df = 3
	Rs. 5001 - 7000	0	8	$P < 0.05$
	Above Rs. 7000	4	8	Not Significant
4	Overall	**n :33**	**n :37**	
	Rs. 1000 – 3000	13	9	$X^2 = 10.438$
	Rs. 3001 – 5000	16	12	df = 3
	Rs. 5001 - 7000	0	8	$P < 0.05$
	Above Rs. 7000	4	8	Not Significant

It is inferred from table 7 that there is a significant association between income of the respondents and overall

knowledge about HIV/AIDS. Further, it is clearly indicates that income has little influence knowledge about HIV/AIDS experienced by respondents.

SUGGESTIONS

1. Social rehabilitaion, alternates employment and vocational training in order to earn their livelihood, needs special attention of the government and non-governmental organizations.

2. Social work agencies should educate people to have 'safe sex' by using condoms and avoiding multiple sexual partners. This could be done through TV, Radio, Newspapers and other mass media.

3. HIV test should be made free and confidential for persons who indulge in the high-risk activities and who may themselves want to know whether they are HIV infected or not.

4. The condoms should be freely distributed or supplied at cheap rates in red-light areas to prostitutes.

5. The voluntary organizations should help spread knowledge on AIDS to different vulnerable groups through innovative and community - based approaches.

6. Female condom should be made available to them to safe guard their own health.

7. Society's negative and discriminating attitude towards commercial sex workers and victims of HIV/AIDS should be erased at any cost.

8. Prevention of Immoral Traffic of Women and Girls Act (PITA) suitably amended so that law and autorities should deal not only the commercial sex workers but also the clients and the promoters of the flesh trade. The amendment should follow a high level consultaion with social workers, judicial officers, layers and law makers and there should be representaion from National Commission for women.

9. Individual counseling should need the commercial sex workers for reducing their psychological problems like anxiety and depression etc.

10. Commercial Sex Workers should know about STI and they are at high risk. This can be achieved by Targeted Intervention Programme (TIP), with the help of social work agencies, WHO work for their welfare and by the authorities of vigilance protective home in which they are lodged.

11. Social workers can help the commercial sex workers for giving awareness about the treatment of their common health problems and where the treatment will get free for their health promotion.

12. Health education is an integral part of STI control programmes. The prinicipal aims of educational intervention are to help individuals alter their behaviour in

an effort to avoid STI, that is, to minimize diseases acquistion and transmission. The target groups may include the general public, patients, priority groups, community leaders etc., and primary health care of WHO also underlines the importance of health education.

CONCLUSION

In India, despite the many laws against the sex industry and traditional caste bound prostitution, prostitution and trafficking is still common. However, Indian laws are little ambiguous when it comes to the issue of defining prostitution. The sale of one's own bodily sex to a male customer by an adult woman on her own free will in her private premises not illegal and hence not punishable as per the Indian laws. At the same time, Indian law does not give a special recognition by way of registration, documentation or license for the sale of one's own bodily sex to a male customer in her private premises or in public premises on her own free will (Jefferys, 1997). Organized prostitution is illegal in India. The text and spirit of the existing law does not allow anyone (e.g. the anti social elements) to take disadvantage of the helplessness and vulnerability of a woman and therefore it makes brothel keeping, procuration of person for prostitution, living on earning of other person's prostitution, giving ones premises for the business of prostitution, detaining anyone in brothel etc illegal and punishable. There are two views in India regarding of prostitution. One view is to further criminalize it. and other to totally decriminalize it (Parkins, 1991).

The total eradication of prostitution is impossible. It is time to repeal laws used to punish prostitutes in seeking to protect public decency and order. Legalizing prostitution is

one solution, though not a panacea. Legalized prostitution refers to a wide range of situations. It can simply mean that prostitution is not against the law. More often the case, though, legalization is synonymous for regulation, with laws enforced by police. Licenses can be issued, for example, with mandatory health-checks (Rozario, 1997). Zoning laws may set up "prostitution centers" should be removed from residential areas. Total prostitution elimination would require restructuring social setup, which would give greater sexual freedom to men and women in which women's identity is respected as a human being. Education and economic independence of women will counter their vulnerability and lead to the recognition and respect of women's dignity as that of a human being (James, 2001).

AIDS and HIV infection are transmitted mainly through behaviour which is private, secret and often hidden. As such, the infection or even the suspicion of infection leads to stigma and discrimination. Discriminatory practices have targeted persons that are subsumed under 'high-risk' groups (like, prostitutes, drug-users and homosexuals). These person are categorized according to the presumed risk that they are identified with. Such categorization not only challenges the rights of the individuals but the categorized persons are also victimized under the guise of preventing AIDS. This undermines efforts to reach these persons and seek their active cooperation in the fight against AIDS (Elaner, 1995).

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A STUDY ON THE LEVEL OF AWARENESS ON STI, HIV/AIDS AMONG INDUSTRIAL WORKERS OF TIRUCHIRAPPALLI DISTRICT

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INTRODUCTION

Human Immuno Virus is the causative virus of AIDS (Acquired immune deficiency syndrome). AIDS has no precedent in medical history. It was first widely recognized in 1981, although evidence of the virus was found in stored blood collected in 1959, and so it seems that it has been in existence for longer than it was first thought. The virus primarily attacks the white blood cells (The Tlymphocytes or CD-4 cells) and macrophages of the body. These cells play a key role in maintaining a person's immunity to disease. As a result, HIV infected people become susceptible to illnesses caused by the collapse of the body's immune system. Individuals infected with the virus are infectious for the rest of their lives, and can transmit HIV via blood or sexual fluids. The common conditions and diseases related to AIDS include Kaposi's sarcoma (cancer of the lining of the blood vessels), pneumonia, tuberculosis, toxoplasmosis (viral infection affecting the central nervous system),cytomegalovirus (CMV) infection (a common viral infection that can cause retinitis and blindness), candidacies,

and severe herpes. As the depressed immune system makes the individual vulnerable to many illnesses, almost any symptom may occur in HIV infection.

GLOBAL PERSPECTIVE

The first cases of AIDS were reported in the USA in 1981, when young, homosexual men were diagnosed with Kaposi's sarcoma, an unusual disease among young people. It is now estimated that several million people are infected with HIV world - wide (see Statistics Section for details). However, because of the differing abilities of affluent nations and poor nations not only to respond to the epidemic, but also to keep track of cases, current estimates may not be accurate and do not reflect the potential impact on different countries. The largest pool of infection is in Africa, where transmission predominantly occurs through heterosexual contact and infected blood given in transfusions (10% of infections - usually there are no blood - screening programs). Two thirds of the estimated global total of AIDS cases, and the majority of HIV - positive people, are in this region. There is now the potential for rapid spread of HIV through Asia and India. The World Health Organization (1991) estimated that the distribution of HIV infection in the world is as follows :

- 60% in Sub - Saharan Africa
- 30% in North America and Australia
- 6% in Europe
- 4% in Asia and the Middle East

In addition, the socio-economic conditions and levels of prostitution in some developing countries (e.g.Thailand) are conducive to rapid spread of infection.

WHO estimates that HIV is spread in the following way

- 60% transmitted through vaginal intercourse
- 15% through anal intercourse
- 10% through injecting drug use
- 10% prenatal (i.e. from mother to baby in the uterus or during the birth process)
- 5% through contaminated blood and other injections

HIV/AIDS AROUND THE WORLD

The latest statistics on the world epidemic of AIDS&HIV were published by UNAIDS/WHO in November AIDS deaths in 2006, and refer to the end of 2006. Adults living with HIV/AIDS in 2006-37.2 million Adult AIDS deaths in 2006-2.6 million, People living with HIV/AIDS in 2006-39.5 million. More than 25 million, people have died of AIDS since 1981. Young people (under 25 years old) account for half of all new HIV infections worldwide - around 6,000 become infected with HIV every day. In developing and transitional countries, 6.8 million people are in immediate need of life - saving AIDS drugs; of these, only 1.65 million are receiving the drugs. The number of people living with HIV has risen from around 8 Million in 1990 to nearly 40 million.

The overwhelming majority of people with HIV. some 95% of the global total, live in the developing world. The proportion is set to grow even further as infection rates continue to rise in countries where poverty, poor health care systems and limited resources for prevention and care fuel the spread of the virus.

YOUNG PEOPLE AFFECTED BY HIV AND AIDS

Around half of the people who acquire HIV become infected before they turn 25 and typically die of the life-threatening illnesses called AIDS before their 35th birthday. By the end of 2005, the epidemic had left behind 15.2 million AIDS orphans, defined as those aged fewer than 18 who have lost one or both parents to AIDS. These orphans are vulnerable to poverty, exploitation and themselves becoming infected with HIV. They are often forced to leave the education system and find work, and sometimes to care for younger siblings or head a family.

INDIA-HIV/AIDS STATISTICS SUMMARY

India has a population of one billion, around half of whom are adults in the sexually active age group. The first AIDS case in India was detected in 1986, and since then HIV infection has been reported in all States and Union Territories. The spread of HIV in India has been diverse, with much of India having a low rate of infection and the epidemic being most extreme in the southern half of the country and in the far north-east. The highest HIV prevalence rates are found in Maharashtra in the west; Andhra Pradesh and Karnataka in the south; and Manipur and Nagaland in the north-east. As of July 2005, 92% of all nationally reported AIDS cases have been found in 10 of the 38 States Union Territories. The greatest numbers were in Maharashtra and Gujarat in the west; Tamil Nadu and Andhra Pradesh in the south; and Manipur and West Bengal in the north-east. In the Southern States, the infections are mostly due to heterosexual contact, while infections are mainly found amongst injecting drug users in

Mainpur and Nagaland. These are UNAIDS/WHO estimates. Adults are defined as people aged 15 or above. These estimates include all those with HIV infection, whether or not they have developed symptoms of AIDS. The Indian National AIDS Control Organization (NACO) estimates that 5.21 million people were living with HIV in 2005, giving an adult prevalence of 0.91%. This represents a slight increase from the 2004 estimate, and a substantial increase from 4.58 million in 2002. AIDS data, end of July 2005, Male-79, 041, Female - 32, 567. The statistics for AIDS cases may be a poor guide to the severity of the epidemic, as in many situations a patient will die without HIV having been diagnosed, and with the cause of death attributed to an opportunistic infection, such as tuberculosis. According to UNAIDS/WHO, between 270,000 and 680,000 Indians died of AIDS in 2005.

HIV PREVALENCE AMONG DIFFERENT POPULATION GROUPS

The average HIV prevalence among women attending antenatal clinics in India is 0.88%. Much higher rates are found among people attending sexually transmitted disease clinics (5.66%), female sex workers (8.44%), injecting drug users (10.16%) and men who have sex with men (8.74%). Rates vary widely between regions, and exceed 20% among female sex workers in Maharashtra, injecting drug users in Delhi and Manipur, and men who have sex with men in Delhi.

OBJECTIVES

1. To study the socio demographic characteristics of the Industrial contract workers who are selected as the respondents for the present study.

2. To study the Industrial contract workers on their level of awareness on STI and HIV/AIDS.

3. To find out the associations among the selected socio- economic aspect and with different variables, with the level of awareness on STI and HIV/AIDS.

RESEARCH DESIGN

Since the authors are interested in understanding the individual worker's nature and their with the level of awareness on STI and HIV/AIDS, Descriptive design has been adopted for the present study.

TOOLS OF DATA COLLECTION

Self - prepared interview schedule has been used to collect the required data.

UNIVERSE AND SAMPLING

The universe of this study consist of 410 male contract industrial workers, form 28 Small-scale Industries, Thuvakkudy. The researchers, by using convenient sampling procedure, selected 200, as the sample, for the present study.

DATA ANALISIS AND INTERPRATATION

Table - 1
Distribution of respondents by their age

S. No.	AGE	No. of Respondents (N:200)	Percentage
1	Up to 20	20	10.00
2	21-30	128	64.0
3	31-40	44	22.0
4	Above 41	8	4.0

Table - 2
Distribution of respondents by their marital status

S. No.	MARITAL STATUS	No. of Respondents (N:200)	Percentage
1	MARRIED	82	41.0
2	UNMARRIED	118	59.0

Table - 3
Distribution of respondents by their type of family

S. No.	TYPE OF FAMILY	No. of Respondents (N:200)	Percentage
1	JOINT	150	75.0
2	NUCLEAR	50	25.0

Table - 4
Distribution of respondents by their occupation

S. No.	OCCUPATION	No. of Respondents (N:200)	Percentage
1	WELDER	84	42.0
2	FITTER	26	13.0
3	GAS BINDER	14	7.0
4	GRINDER	44	22.0
5	HELPER	32	16.0

Table - 5
Distribution of respondents by their native

S. No.	NATIVE BACKGROUND	No. of Respondents (N:200)	Percentage
1	URBAN	74	37.0
2	RURAL	80	40.0
3	SEMI URBAN	46	23.0

Table - 6
Distribution of respondents by their education

S. No.	EDUCATION	No. of Respondents (N:200)	Percentage
1	UP TO 8TH	44	22.0
2	$9\text{-}10^{TH}$	104	52.0
3	$11\text{-}12^{TH}$	50	25.0
4	UG	2	1.0

Table - 7
Karl pearson's co-efficient of correlation between the respondents' age and awareness levels on HIV/AIDS, STI

S. No.	Variable	Correlation Value	Statistical Inference
1	Age and HIV	0.159	$P < 0.05$ Significant
2	Age and AIDS	-0.097	$P > 0.05$ Not Significant
3	Age and STI	0.165	$P < 0.05$ Significant
4	Age and OVERALL	0.106	$P > 0.05$ Not Significant

Table - 8
't' Test between the respondents type of family and awareness levels on HIV/AIDS, STI

S. No.	Type of Family	X	S.D.	Statistical Inference
1	THE AWARENESS LEVELS ON HIV Joint Nuclear	 6.4400 6.8400	 2.2658 2.7947	t = 1.017 P > 0.05 Not Significant
2	THE AWARENESS LEVELS ON AIDS Joint Nuclear	 5.0400 5.0400	 2.3081 2.2403	t = 0.000 P > 0.05 Not Significant
3	THE AWARENESS LEVELS ON STI Joint Nuclear	 3.9200 4.3600	 1.9984 1.9770	t = 1.352 P > 0.05 Not Significant
4	OVERALL Joint Nuclear	 15.4000 16.2400	 4.5672 4.8679	t = 1.108 P > 0.05 Not Significant

Table - 9
Association between native and awareness levels on HIV/AIDS & STI of the respondents

S. No.	Native	Various Dimensions HIV/AIDS		Statistical Inference
		Low	High	
1	THE AWARENESS LEVELS ON HIV	n : 98	n :102	$x^2 = 1.390$
	Urban	34	40	df = 2
	Rural	38	42	P >0.05
	Semi urban	26	20	Not Significant
2	THE AWARENESS LEVELS ON ADS	n : 80	n :102	$x^2 = 9.945$
	Urban	40	34	df = 2
	Rural	24	56	P < 0.05
	Semi urban	16	30	Significant
3	THE AWARENESS LEVELS ON STI	n : 80	n :102	$x^2 = 0.024$
	Urban	30	44	df = 2
	Rural	32	48	P > 0.05
	Semi urban	18	28	Not Significant
4	OVERALL	n : 86	n :114	
	Urban	32	42	$x^2 = 0.733$
	Rural	32	48	df = 2
	Semi urban	22	24	P > 0.05
				Not Significant

Table - 10

Association between education and various awareness levels on HIV/AIDS & STI of the respondents

S. No.	Education	Various Dimensions of HIV/AIDS		Statistical Inference
		Low	High	
1	THE AWARENESS LEVELS ON HIV	n : 98	n :102	
	Up to 8th	22	22	$x^2 = 6.458$
	9-10th	56	48	df = 3
	11-12th	18	32	P >0.05
	UG	2	0	Not Significant
2	THE AWARENESS LEVELS ON ADS	n : 80	n :102	
	Up to 8th	16	28	$x^2 = 8.166$
	9-10th	36	68	df = 3
	11-12th	28	22	P > 0.05
	UG	0	2	Not Significant
3	THE AWARENESS LEVELS ON STI	n : 80	n :102	
	Up to 8th	22	22	$x^2 = 3.603$
	9-10th	40	64	df = 3
	11-12th	18	32	P >0.05
	UG	0	2	Not Significant
4	OVERALL	n : 86	n :114	
	Up to 8th	18	26	$x^2 = 3.681$
	9-10th	50	54	df = 3
	11-12th	18	32	P > 0.05
	UG	0	2	Not Significant

Table - 11

One-way analysis of variace among varous occupation and awareness levels on HIV/AIDS & STI of the respondents

S. No.	Source	Df	SS	MS	X	Statistical Inference
1	Job stressor Between Groups Within Groups	4 195	68.510 1085.170	17.127 5.565	G1=6.9762 G2=5.2308 G3=.0000 G4=6.2273 G5=6.6875	F=13.07 P<0.05 Significant
2	Group stressor Between Groups Within Groups	4 195	4.110 1035.570	1.028 5.311	G1=5.0952 G2=5.0769 G3=4.5714 G4=5.1364 G5=4.9375	F=.193 P>0.05 Not Significant
3	Organizational stressor Between Groups Within Groups	4 195	42.517 751.303	10.629 3.853	G1=3.9524 G2=3.0000 G3=4.7143 G4=4.4091 G5=4.2500	F=2.75 P<0.05 Significant
4	Overall Between Groups Within Groups	4 195	162.005 4133.575	40.501 21.198	G1=16.0238 G2=13.3077 G3=16.2857 G4=15.7727 G5=15.8750	F=1.911 P>0.05 Not Significant

Table - 12
The awareness levels on HIV/AIDS & STI of the respondents

S. No.	LOW-HIGH	No.of Respondents (n:200)	Percentage
1	The Awareness Levels On HIV		
	Low	98	49.0
	High	102	51.0
2	The Awareness Levels On AIDS		
	Low	80	40.0
	High	120	60.00
3	The Awareness Levels On STI		
	Low	80	40.0
	High	120	60.0
4	Overall		
	Low	86	43.0
	High	114	57.0

Table - 13

Inter correlation matrix among various awareness levels on HIV/AIDS & STI of the respondents

Dimensions				OVERALL
	1.000			
	0.180*	1.000		
	0.162*	0.332**	1.000	
OVERALL	0.677**	0.728**	0.677**	1.000

**0.01 Level of Significance *0.05 Level of Significance

FINDINGS

Majority of the respondents are from joint families, 21-30 age group, urban settings, the educational background of 10th Std. Less than half of the respondents have low level of awareness on HIV infection. More than half of the respondents have high level of awareness on AIDS and STI. There is no significant association between the native and educational backgrounds with the level of awareness on HIV and STI. There is a significant association between the native and educational backgrounds with the level of awareness on AIDS. There is no significant difference between the type of family with regard to the level of awareness on HIV and STI. There is correlation between the ages, level of awareness on HIV, AIDS and STI.

SUGGESTIONS

- The contract workers in the industries of Thuvakkudy need to challenge the myths and misconceptions about

human sexuality that translate into dangerous sexual practices.

- Awareness programme on STI, HIV/AIDS should be organized for the industrial contract workers at Thuvakudi area.

- HIV prevention initiatives need to be increased, people across the district need to be made aware of the dangers, the risks, and the ways they can protect themselves.

- Condom promotion and supply needs to be increased, and the appropriate sexual health education needs to be provided to young and unmarried workers before they reach an age where they become sexually active.

- Medication and support needs to be provided to people who are already HIV+, so that they can live longer and more productive lives, support their families, and avoid transmitting the virus onwards.

CONCLUSION

Future projections of the extent of the HIV/AIDS epidemic cannot be made with any precision; what happens next will depend on what action is taken. In some scenarios, Governments and societies mount a very vigorous and wide-ranging response which recognizes AIDS as much more than just a health issue, and so HIV prevalence eventually decreases; in other projections, good intentions fail to deliver anything more than shor-term and fractured responses in the worst-affected countries, and the number of people living with HIV soars.

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HIV/AIDS AND YOUTH

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INTRODUCTION

HIV is a global pandemic that is weakening the developing world. The number of people living with HIV world wide continues to increase. HIV is a virus that destroys the immune system, leading to opportunistic infections. The progression from initial infection with HIV to end-stage AIDS varies from Person to Person. This epidemic has started much early in African countries. South Africa is home to about 30% of people living with HIV/AIDS world wide yet, this region has less than 2% of the world population. Eastern Europe and some of the Asian countries are experiencing early phase and the epidemic is rapidly increasing in these countries. Mostly the younger generation are infected. In Asia, 7.4 million people are living with HIV. Around half a million are believe to have died of AIDS in 2003, and 1.1 million are thought to have become newly infected with HIV. Among young people 15-24 years of age 0.3% of women and 0.4% of men were living with HIV at the end of 2003.

WHO's recent report says that India has a number of HIV/AIDS cases worldwide. The recent estimate done by

National AIDS Control Organization (NACO) reports 5.1 million HIV infected people are living in India. Tamil Nadu, Maharastra, Karnataka, Andhra Pradesh, Manipur and Nagaland are reported by National AIDS Control Society as highly HIV prevalent states. So, Tamil Nadu is one of the highly HIV/AIDS prevalent states in India. The first case of HIV/AIDS in the country was detected in Tamil Nadu in 1986. Tamil Nadu today accounts for about 45% of the AIDS cases reported in the country. Tamil Nadu is a state with 62.2 million populations. In all the highly HIV prevalence states, HIV is transmitted mainly through heterosexual sex.

All the countries now have national AIDS Prevention and Care Programmes and are organizing efforts to combat the spread of HIV which include sex education, condom programming, providing STD services and ensuring blood safety. Another important lesson learned is the need to prioritize programme activities. Not everyone is at equal risk of contracting HIV. Identifiable groups of people who are engaged in behaviour which facilitate the spread of HIV can be targeted for priority prevention activities. These behaviours include having multiple sexual partners and sharing injecting equipment. Groups of individuals who share common high-risk behaviour might include, among others, commercial sex workers and their clients; injecting drug users; people with STDs; migrant workers; transportaion workers especially truck drivers; street children and the military. Other general groups, such as women who are limited access to information and services or Youth, also need special emphasis.

Youth is considered as powerful segment of each society. During this age, they are very energetic, physically and

mentally. If their energy is properly utilized, the process of development accelerates, if not, it retrogrades. It is the reason that each nation pays a greater attention over their youth. The process of tapping youth power in educational institutions offers and added benefit. i.e., teachers who are important catalysts in social change. In the health aspect, education is one of the main ways a community can work to keep AIDS from spreading. Providing sex education for youth is universally consider the most effective way to initiate prevention activities focusing on behavioural change.

Behaviour change happens in the context of the individual, the groups and the community. It is not just an event, but a process taking place over a long period of time, ranging from a stage of unawareness through awareness and trying out new behaviours to reaching sustained change. Behaviour change is first of all a personal responsibility, but it is very difficult to achieve alone. Community support and help are essential for sustained changes in behavious. Behavioural change is needed among the student community.

Tamil Nadu is a forerunner in HIV/AIDS prevention and control activities. In Tamil Nadu, there are many organizations which provides HIV/AIDS prevention and control activities. The important key player in the state is Tamil Nadu AIDS Control Society. (TANSACS). It provides sex education among college youth in the form of Red Ribbon Club (RRC) Programme.

Red Ribbon Club is a voluntary on campus intervention program for students in higher educational institutions in Tamil Nadu. It is initiated and supported by Tamil Nadu

State AIDS Control Society (TANSACS) and implemented through multi-sectoral collaboration particularly, using the services of cadre officers of the State's National Service Scheme (NSS). The programme addresses the knowledge, attitude and behaviour of youth in interrelated areas of both HIV/AIDS and sexuality, as demanded by their age, environment and life style.

OBJECTIVES OF THE STUDY

- To study the nature of HIV/AIDS Prevention and Control Programmes which provides through Red Ribbon Club (RRC)
- To assess the awareness level about HIV/AIDS among youth through RRC.
- To find out the impact of RRC programme among college youth, after the implementation of the Red Ribbon Club.

METHODOLOGY

Rapid assessment were adopted in this study. Interview method was used. Both qualitative and quantitative information were obtained from the college youth with the help of pre-test and post - test questionnaire.

COVERAGE OF THE RRC SCHEME

The RRC Scheme keeps at the centre students of higher education institutions who are invariably in the age group of 15-25. The scheme covers universities (except Medical and allied), Arts and Science Colleges, Engineering Colleges, Agricultural and Law Colleges and Polytechnics. Around 75 lakhs students receive their education in nearly 1000 institu-

tions, Women account for 40-45% of the student's strength of the post-graduate program in the state and 50-55% of the undergraduate programmes.

AREA OF THE STUDY

In Tamil Nadu, Red Ribbon Club project implemented in 1000 higher educational institutions. Tirunelveli District is a area of the study. In Tirunelveli District RRC project implemented in 46 colleges except Medical and Paramedical colleges.

SAMPLE SIZE

In Tirunelveli District, 5 Arts and Science Colleges were selected for this study. 10 students in each college were selected for data collection through pre-test and post-test. So, totally 50 samples were selected to assess the impact for this study.

SELECTION OF RESPONDENTS

50 respondents were selected from 5 Arts and Science Colleges i.e. St. Xaviers College, Palayamkottai, Thiruvalluvar College, Papanasam, Sri Parasakthi Women's college, courtallam. Mano College, Sankarankoil and Rani Anna Arts College, Tirunelveli. Among 50 respondents. male students were 25 in number and female students were 25.

NATURE OF HIV/AIDS PREVENTION AND CONTROL PROGRAMMES OF RRC

Red Ribbon Club was firstly introduced on july 2005 in all 46 higher educational institutions in Tirunelveli District. After the introduction of Red Ribbon Club, the inaugu-

ral function was started in all the colleges at various times. Then, one programme officer was selected for each college to give training with the goals of RRC. During the inaugural function, college students were invited to join as a member in Red Ribbon Club was formed in all the 46 colleges of Tirunelveli District.

Red Ribbon Club (RRC) programme is a comprehensive promotional and prevention intervention to mainstream HIV/AIDS prevention, mitigation, stigma reduction, care and treatment among the youth in higher educational institutions in Tamil Nadu and also to prepare and promote peer group educators within and outside the campuses. To achieve the goals of RRC, campus level and District level programmes were conducted in all the colleges. The first programme of RRC was peer education workshop for college youth. In this workshop, basic concepts of HIV/AIDS, sex and sexuality, gender issues, youth vibrancy and skill development training with problem solving were explained for the college youth.

RRC plays a big role to create awareness for the public through youth. For this, they are doing media programmes. By creating awareness through radio and cable network, it will easily reach all the literate and illiterate masses.

AWARENESS LEVEL ASSESSMENT AMONG COLLEGE YOUTH

The lack of awareness puts the people in high risk because they are not able to protect themselves as well as they could not able to utilize the services available to them. Red Ribbon Club is important and effective one to create awareness among college youth. This study indicates that during

pre-test that is before the formation of RRC, only 55 percent of the college youth were aware of HIV/AIDS but the remaining 45 percent of the respondents were unaware of HIV/AIDS. But during the post-test, that is after the formation of RRC, 95 percent of the college youth are fully aware of HIV/AIDS and the remaining 5 percent of the respondents are not fully unaware but they are partially aware after the formation of Red Ribbon Club in Tirunelveli District.

In addition to this, oratorical competition for blood donation awareness, Eassay competition for sexual based youth problem, Quiz programme, Seminar on HIV/AIDS, Creating HIV/AIDS awareness given by college youth for the public. Then, the sub committees were formed to strengthen the RRC. Tamil Nadu AIDS Control Society with technical support from Centre for Disease Control (CDC), Atlanda prepared a manual of curriculam programme to provide education for the college youth. Curriculam programme includes dimensions in growth and development, STD, HIV/AIDS, Sex, Sexuality and gender and life skill education for prevention of HIV/AIDS. This programme is in process among college youth. These are the nature of HIV/AIDS programmes which is processing among college youth.

IMPACT OF RED RIBBON CLUB PROGRAMME AMONG COLLEGE YOUTH AFTER THE IMPLEMENT OF RRC

As the epidemic of HIV is progressing in to the third decade it had posed a lot of challenges to the humanity. To change this situation, Red Ribbon Club plays a prominent role in the youth sector. Because, its main goal is to protect the

youth community as well as the public through youth. This RRC provides a great impact on college youth. Particularly, this study assess the health impact on college students. Through RRC, 100 percent of the students got knowledge on STI (Sexually Transmitted Infection), RTI (Reproductive Tract Infection) and HIV/AIDS. Due to the formation of RRC, myths and misconceptions are reduced i.e. about masturbation, menstration and opposite sex attraction etc. among college youth. As a result of the implementation of RRC programme, there is a lot of change in the behaviour occurred among them. 78 percent of the college youth are willing to donate blood in the efforts of RRC. Through cultural programmes, they gained much knowledge on sexual behaviour. Before the information of Red Ribbon Club, youth were got partial knowledge regarding HIV/AIDS. But after that, they got much knowlege about HIV/AIDS.

CONCLUSION

Red Ribbon Club opened the door to youth from their ignorance and illiteracy. Its effect will definitely reach the masses through college youth. After the implementation of Red Ribbon Club Project, youth have achieved more knowledge of sex education on HIV/AIDS. We can say that the efforts of Tamil Nadu State AIDS Control Society lit the lamp in the life of every youth.

SOCIAL STIGMA FACED BY HIV/AIDS AFFECTED CHILDREN WITH SPECIAL REFERENCE TO OPERATION RAINBOW, THIRUCHIRAPPALLI

S.SANGEETHA

HIV & CHILDREN

Globally, approximately 2.8 million children per year are born to HIV infected women. Improved access to antiretroviral for both prevention of mother to child transmission and maternal treatment results in increasing numbers of HIV-uninfected children living with their HIV infected mothers. There is increesing evidence for poorer health in these children due to the direct of HIV itself and exposure to antiretroviral. These include altered immunity and hematological parameters and increased morbidity and mortality. However, the psychosocial and economic impact of living within an HIV affected family may be just as important. In this review we have summarized the available data from both developed and developing countries on the vulnerability of HIV - exposed but uninfected children.

"30,000 babies are born HIV - positive every year in India" In January 2000, the prevention of parent - to child transmission project was launched at 11 medical institutions all over India. Three were in Chennai, capital of the southern

state of Tamil Nadu, which has one of highest HIV rates in the country.

Almost four million people live with HIV and AIDS in India and some 30,000 babies are born HIV - positive each year. In 2006, over 4 million people were newly infected with HIV and 2.9 million died from AIDS. 40 million people currently live with HIV.

At the end of 2006, there were 2.3 million children living with HIV around the world. Over half a million children become newly infected with HIV in 2006. Of the 2.9 million people who died of AIDS during 2006, over ten were children. Every hour, forty children die as a result of AIDS. [Source : UNAIDS/WHO (2006, Dec) AIFDS Epidemic update]

STIGMA

Webster defined stigma as "something that detracts from the character of reputation of a person or group a mark of disgraced or reproach. etc. indicating that something is not considered normal or standard".

Goffman described stigma as "An attribute that is deeply discrediting within a particular social interaction". His explanation of stigma focuses on the public attitude is "Reduced in our minds from a whole and usual person to a tainted. discounted one".

WHAT IS HIV/AIDS STIGMA?

HIV/AIDS - related stigma is a complex concept that refers to prejudice, discounting, discrediting and discrimina-

tion directed at person perceived to have AIDS or HIV, as well as their partners, friends, families and communities. HIV/AIDS stigma often reinforces existing social inequalities on gender, race, ethnicity, class, sexuality and culture. Stigma against many populations disproportionately affected by HIV has been present for a long time in the US. HIV has compounded the stigma of homosexuality, drug use, poverty, sex work and racial minority status. Stigma has been expressed in a variety of ways. Including :

1. Ostracism, rejection and avoidance of people living with AIDS.
2. Discrimination against people living with AIDS by their families, health care professionals, communities and Governments;
3. Mandatory HIV testing of individuals without prior informed consent or confidentiality protections;
4. Quarantine of person who is HIV infected.
5. Violence against person who are perceived to have AIDS.

FACTORS THAT CONTRIBUTE HiV/AIDS - RELATED STIGMA:

★ Lack of education and understanding about the disease, for example that HIV/AIDS is always fatal.

★ Myths and fears about how HIV is transmitted. Shaking hands, hugging, drinking from the same container and mosquito bites.

★ The disease's association with behaviors (such as sex between men and intravenous drug - use). That is already stigmatized in many societies.

★ Self - discrimination: There are cases where HIV infected people discriminate against themselves even when accepted by others. They are not comfortable mingling with people who are not infected with HIV.

★ Religious or moral believe that having HIV/AIDS is the result of moral faults (such as promiscuity or 'deviant sen') that deserve to be punished.

WHAT NEEDS TO BE DONE?

Knowledge about HIV prevention, transmission and care offset the stigma that is caused by misinformation and ignorance. Education programs are still needed in many areas and population, and will continue to be needed for successive generation of young people.

Stigma exists not simply within individual actions, but within broad social and cultural contexts that need to be addressed in stigma - reduction programs. Organizations and communities must tackle the values, norms and moral judgments that contribute to the stigmatization of HIV + persons by engaging faith - based organizations, key institutions and opinion leaders that help, shape and reinforce societal values. 15 policymakers need to consider the potential consequences of laws to make sure they don't inadvertently increase HIV/AIDS - related stigma.

HIV + person must be involved in designing, running and evaluating stigma reduction programs. One approach is to train and support HIV + person to organize to advocate for them. 16 preventions, coping and adherence programs for HIV + persons should directly address stigma and its effect on HIV + person's health and well being.

SCOPE OF THE STUDY

The research on "Social Stigma Faced by HIV/AIDS Affected Children" is intended to study the social stigmatization faced by children affected by HIV/AIDS. The study will help to find out the social stigmatization faced by children in various dimensions like family, school and peer group. The study will also help to know about the socio- demographic details of the children.

OBJECTIVES

The objectives of the study are the following:

- To study about the socio - demographic background of HIV affected children.
- To find out the social stigma faced by HIV affected children.
- To find out the social stigmatization faced by HIV affected children in family, school. and among peer groups.
- To decipher who is HIV/AIDS infected in the children family.
- To find out the attitudional change of the society after knowing about their parents infection.

RESEARCH DESIGN

The research design is the conceptual structure within which research is conducted. It constitutes the blue print for the collection measurement and analysis of data. The researcher adopted descriptive design. as the study describes the social stigma faced by HIV/AIDS affected children. Descriptive research studies are those studies which are concerned with describing the characteristics of a particular individual, or of a group.

SAMPLING AND UNIVERSE

The universe of the study is selected as the children affected by HIV/AIDS under the age group of 9 to 14 Operation Rainbow, Thiruchirapplli. The sampling design used for the study is Census method. All the universe has been accepted as samples. The universe and sample of the study is 40.

TOOLS OF DATA COLLECTION

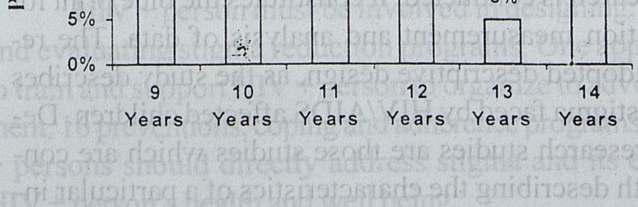
The researcher used self prepared Interview schedule for data collection. The questions in the Interview schedule are related to the social stigma faced by HIV/AIDS affected children in family, school and among peer group.

STATISTICAL ANALYSIS

The researcher used ANOVA, T - Test, Chi - Square test and Correlation methods for the statistical analysis of the data being collected.

ANALYSIS AND INTERPRETATION

Figure - 1 : Age of the respondent



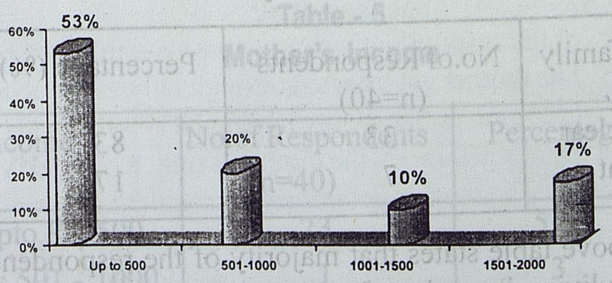
The above Figure shows that most of the respondents (23%) belong to the age group of 9. The age group under 10, 11 and 12 come next with 20%. Respondents of the age group of 14 are 13% and 13 are 5%.

Table - 1
Respondent Sex

Respondent Sex	No.of Respondents (n=40)	Percentage (%)
Male	20	50
Female	20	50

The male and female respondents are equal, therefore 50% of the respondents are male and the other 50% are females.

Figure 2: Monthly income of the family



The family income of the most families (53%) are below 50% which is a less income group. They have no regular income. There basic needs are met through Operation Rainbow, which is working for their welfare. 20% families have

income under the category from 501-1000 and 17% are earning from 1501-2000. Only 10% are earning 1000-1500 per month.

Table - 2
Nature of Domicile

Nature of domicile	No.of Respondents (n=40)	Percentage (%)
Rural	21	53
Urban	19	47

Above table reveals that most of the respondent's area of domicile is rural (53%) and the next comes urban area with 47%

Table - 3
Type of Family

Type of family	No.of Respondents (n=40)	Percentage (%)
Nuclear	33	83
Joint	7	17

Above table states that majority of the respondents (83%) are living in nuclear families and 17% are living in joint families. Nuclear families number is more because when others are known about their HIV infection, they don't like to stay with them. Thus the HIV affected family will be made to come out of the joint family and starts to live as a nuclear family.

Table - 4
Father's Occupation

Occupation	No.of Respondents (n=40)	Percentage (%)
Driver	21	53
Agriculture	4	10
Coolie	2	5
Others	13	32

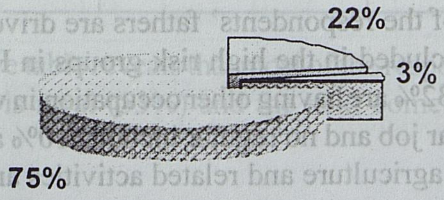
Most of the respondents' fathers are drivers (53%). Drivers are included in the high risk groups in HIV/AIDS transmission. 32% are having other occupation in which they have no regular job and no regular income. 10% are having occupation in agriculture and related activities and the rest 5% are working as coolies.

Table - 5
Mother's Income

Income	No.of Respondents (n=40)	Percentage (%)
Upto Rs. 500	23	57
Rs.501 - 1000	1	3
Rs.1001 - 1500	1	3
Rs.1501 - 2000	2	5
Not applicable	13	32

Most of the respondents' mothers' income comes under up to Rs.500 category with 57%. 32% comes under not applicable category for they are not going for any job and having no income. 5% are having income from Rs.1,501 to Rs.2,000 which is the highest income category. Under the income categories Rs.501 - Rs.1000 and 1001 - 1500 the percentage is 3% each.

Figure 3 : Who is infected with HIV/AIDS



75% of the respondent's parents both are infected by HIV/AIDS. The mother get infected through father sexual inter course. In 22% the father is only having HIV/AIDS infection and not the mother. In 3% the mother is only having HIV/AIDS infection. The mother got infected through blood transfusion when she met an accident and admitted in the hospital.

Table - 6

Do your relatives visit your home frequently

Particulars	No.of Respondents (n=40)	Percentage (%)
Yes	18	45
No	22	55

Above table states that, the 55% of the respondents given the response that their relative are not visiting their home frequently. It is because the relatives know that the respondents' families are HIV/AIDS affected. 45% have given positive response as their relatives are visiting them frequently as the relatives are not known about HIV/AIDS infection in the respondents' families.

Table - 7

Have you ever felt any discrimination from your relatives

Particulars	No.of Respondents (n=40)	Percentage (%)
Yes	27	82
No	13	18

Among the respondents 82% responded that they felt discrimination from their relative in one way or another way, 18% respondents never felt any discrimination from their relatives. In most cases this is because they didn't disclose the fact that their family is affected / infected by HIV/AIDS to their friends and relatives.

Table - 8
Are your suggestions are accepted among your friends

Particulars	No.of Respondents (n=40)	Percentage (%)
Yes	15	38
No	25	62

As the respondents are HIV/AIDS affected, the suggestion given by them among their friends are not accepted, responded 62% respondents. 38% responded that their suggestions are accepted among their friends.

Table - 9
Have ever felt that your frierds are avoiding you

Particulars	No.of Respondents (n=40)	Percentage (%)
Yes	25	62
No	15	38

The most of the respondents of the study responded that they didn't feel any avoidance from their friends (62%). The rest of the respondents 38% have felt that their friends are avoiding them.

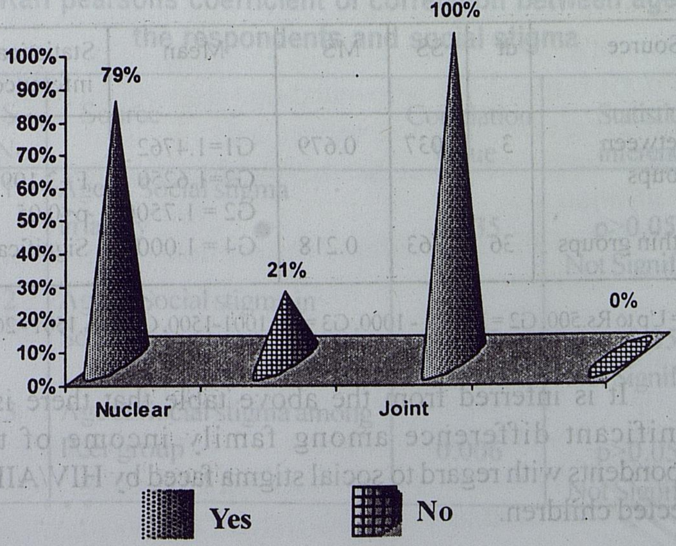
Table - 10

Is there a difference in the way they treat you before your parents illness and after

Particulars	No.of Respondents (n=40)	Percentage (%)
Yes	29	72
No	11	28

After knowing about their parents' illness, there is difference in the way their friends treat responded 72% responded only 28% didn't feel any different in the way their friends treat them before and after their parents' illness.

Figure 4 Type of family and free enough to do anything in their family



Student 'T' test between type of family of respondents with regard to social stigma in family

S. No.	Source	Mean	S.D.	Statistical inference
1	Nuclear Family	5.4545	3.10333	t=2.060 p<0.05 Significant
2	Joint Family	2.8571	2.60951	

It is inferred from the above table that there is significant difference between the type of family of the respondents with regard to social stigma in family.

One way analysis of variance among family income of the respondents and social stigma by HIV/AIDS affected children

Source	dt	SS	MS	Mean	Statistical inference
Between groups	3	2.037	0.679	G1=1.4762 G2=1.6250 G2 = 1.7500	F=3.109 p<0.05 Significant
Within groups	36	7.863	0.218	G4 = 1.0000	

G1 = Up to Rs.500. G2 = Rs.501 - 1000. G3 = Rs.1001-1500. G4 = Rs.1501 - 2000.

It is inferred from the above table that there is a significant difference among family income of the respondents with regard to social stigma faced by HIV/AIDS affected children.

Association between the respondents' type of family and social stigma in family

S. No.	Source	Social stigma in family		Statistical inference
		Low	High	
1	Nuclear Family	15	18	X2=3.754 df=1 p>0.05
2	Joint Family	6	1	Not Significant

It is inferred from the above table that there is no significant association between type of family of the respondents with regard to social stigma in family.

Karl pearsons coerricient of correlation between age of the respondents and social stigma

S. No.	Source	Correlation Value	Statistical inference
1	Age & Social stigma in family	0.035	p>0.05 Not Significant
2	Age & Social stigma in School	0.090	p>0.05 Not Significant
3	Age & Social stigma among Peer group	0.006	p>0.05 Not Significant

The given table shows that there is no significant relationship between age of the respondents with regard to social stigma in family, school and peer group.

FINDINGS

1. Male and female respondents are equal in number.
2. More than half (53%) of the respondents' family income is up to Rs.500.
3. More than half (53%) of the respondents are from rural areas.
4. Most of the respondents (83%) are coming from nuclear family.
5. Half of the (53%) respondents' fathers' occupation is driving.
6. Majority (75%) of the respondents' parents both are infected by HIV/AIDS.
7. 55% respondent's relatives don't visit their home frequently.
8. 77% respondents responded that their relatives are treating them as strangers.
9. 82% respondents felt that they are discriminated from their relatives.
10. Most of the respondents (65%) don't visit their friends' home.
11. 62.5% respondents responded that their suggestions are not accepted among their friends.
12. Half of the respondents felt that they are discriminated from teachers or friends.
13. 60% of the respondents are not having friends in their neighbourhood.

14. Most of the respondents (65%) do not play with their neighbourhood friends.
15. 55% of the respondents do not share food and study material with their peer group.
16. 65% of the respondents do not frequently visit their friends' home.
17. Most of the respondents (62%) responded that their friends are avoiding them.
18. 72% respondents responded that there is difference in the way their friends treat them before their parent's illness and after.

SUGGESTIONS

1. Family members (including close relatives) should be educated how to behave towards HIV affected and infected person. Family and peer group stigmatization should be reduced by giving proper support and guidance.
2. Misconceptions and misbelieves should be removed completely from the orthodox society. HIV/AIDS should not be considered as a social evil. It should be regarded as a disease like other normal diseases and epidemics.
3. Participation of HIV affected children in all kinds of activities should be encouraged along with other students in school. Human Rights concerned with HIV/AIDS discrimination should be strengthened.

LIMITATION

The major limitation the researcher faced is that some of the respondent's family didn't inform about their HIV/AIDS

infection to others like relatives and neighbours. Thus the researcher faced difficulty in finding out the accurate social stigma faced by them as those who didn't tell or not facing any kind of social stigma.

CONCLUSION

This study is intended to study the social stigma faced by children affected by HIV/AIDS in different dimensions such as family, school and peer group. AIDS is perceived as a "Sinful" disease. The AIDS affected family is discriminated and stigmatized in society where ever it is. It was very good experience for the researcher to mingle with HIV affected children and to know how they feel about the disease. Through the research study the researcher came to know that the HIV/AIDS affected children are facing more stigmatization in family and among peer group than in school.

A STUDY ON SELF ESTEEM, KNOWLEDGE AND ATTITUDE OF TEENAGERS TOWARDS SEXUALITY, HIV/AIDS AT THANJAVUR

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INTRODUCTION

Emergency of AIDS has focused everydody's attentions towards the role of sex education, AIDS and other sexually transmitted infections (STI) are common today. Many parents, teachers and students do not understand these diseases and their ways of transmission, treatment, prevention and protection from them. Indeed the Adolescent students, for a variety of reasons, such as, development issues, peer pressure, social influence and pornographic literatures and movies etc, are becoming sexually active even at their early ages. However this early sexual activities are often not accompanied by right knowledge and about their consequences.

DEVELOPMENTAL TASKS OF ADOLESCENCE

Achieving new and more mature relations with age mates of sexes, a masculine and feminine social roles, and accepting ones own physique and using ones body effectively. Desiring, accepting and achieving socially responsible behav-

iors. Achieve emotional independence. Prepare for economic career. Prepare for marriage and family life. Acquire a set of values and an ethical system as guides to behaviors develop specific ideology of his/her own.

BODY CHANGES DURING THE ADOLESCENCE

There are two types of change external changes and internal changes. External changes: Height, Weight, Body Proportions, Sex organs. Internal changes : Digestive system, Circulatory system, Respiratory Systems, Endocrine system, Body tissues.

HEIGHT

The average girls reaches her mature height between age of 17 and 18 the average boy a year or so later. Weight, Weight changes follow a time table similar to that for height changes with weight now distributed over a rise of the body where previously there were little or no feet.

BODY PROPORTIONS

The various parts of the body gradually come in to trunk broadens and lengthens and thus the limbs no longer seem too long.

SEX ORGANS

Both male and female sex organs reach their mature size in late adolescence but are mature in function until several years later.

DIGESTIVE SYSTEM

The stomach becomes longer and less tubular. The intestines grow in length and circumference of muster in the stomach and intestinal walls become thicker and stronger the liver increases in weight and the esophagus become long.

CIRCULATORY SYSTEM

The heart grows rapidly during adolescence by the age of 17 to 18 it 12 times as heavy as it was at birth. the lengths and thickness of the walls of the blood vessels increase and reach a mature level when the heart does.

RESPIRATORY SYSTEM

The lung capacity of girls is almost at a mature level at the age of 17 years later.

BODY TISSUES

The Skeleton stops growing at an average age of 18 tissues other than bone continue to develop after the bones have reached their mature size this is especially tune of muscle tissue.

ADOLESCENT SOCIAL GROUPING

CLOSE FRIENDS

The Adolescent usually has two or 3 close friends or confidents, they are of the same sex and have similar interest and abilities. Close friends have a marked influence on one another though they may quarrel occasionally.

CLIQUES

Cliques are usually made up of group of close friends at first they consist of members of the same sex but later include both boys and girls.

CROWDS

Crowds made up of cliques and group of close friends develop as interest in parties and dating grows because crowds are large. There is less congeniality of interest among the members and thus a greater social distance between them.

ORGANIZED GROUPS

Adult directed youth group are established by schools and community organization to meet the social needs of adolescents who belong to cliques or crowds, many adolescents who join such group feel regimented and lose interest in them by the times they are 16 or 17.

GANGS

Adolescents who belong to no cliques or crowds and who gain little satification forms organized groups may join a gang. The gang members are usually of the same sex and their main interest is to compensate for peer rejection through antisocial behaviors.

PROFILE OF ADOLESCENT SEXUALITY

Adolescence marks the end of childhood and onset of the transition to adulthood. The change adolescencets undergo in their bodies, minds and social relations are as profound. Any that the human faces across the entire life span. During adolescents much happens with regard to sexuality. Not only

has the individual had to cope with pressures and make adjustments to puberty but the emphasis of sexual interest has not been clearly defined to be on members of the opposite sex. These youth may experience increasing pressures from parents and peers with regard to their sexual behaviour. They know the limit taught by parents and sometimes by their religion. They also know what is expected by their peers. It is a period that can show much growth in the youth understanding of sexuality. But it can also be a time of confusion and misunderstanding. Most individuals learn more or less an accurate picture of basic biological and reproduction process by picking up bits of information from friends and written sources. As the adolescent advances through high school, he is likely to be influenced less by parents and more by the values of peers. This transition can be difficult and conflicts develop for some.

NEED FOR SEXUALITY EDUCATIONS

Since boys and girls do not have a factual knowldege of sex because their attempts to obtain that knowledge invite guilt feelings and disapproval of seniors, they do not have healthy and realistic attitudes towards sex. Fantasy and action relating to it are forbidden. It is there fore desirable that adolescents should know biological facts pertaining to sex. This will help them accept various bodily changes during adolescence as normal and nothing to be worried and feel guilty about them. Sex education during this stage will remove the unhealthy attitudes to sex as well as misconceptions and strange ideas about it.

WHAT IS SEXUALITY EDUCATOIN

Sexuality education is a life long process of acquiring information and forming attitudes, beliefs and values about identity, relationshop, and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body, image, and gender roles. Sexuality education addresses the biological, socio - cultural, psychological, and spiritual dimensions of sexuality from the cognitive domain. The affective domain and the behavioral domian, including the skills to communicate effectively and make responsible decisions. Education in human sexuality is an educational programme aimed and promoting the individuals fulfillment both in personal lining and his/her family and social relationship by integrating sexuality into the total personality. Beyond information, children need a great deal of help in adjusting themselves to the acceptance of sex as having a proper place in life. But unless parents and teachers have themselves made the adjustment, they cannot help. It is true that all living things are male and female. It is true that a new individual, whether of plant or animal life, originates in the union of an egg and a sperm. Then why should we deny the facts of reality? Why should we apologize for the constitution of the universe?

STATEMENT OF THE PROBLEM

Indian youth, in the absence of systematic and correct information on matters related to sex and sexuality are facing a dilemma between traditional Indian norms and Western patterns of expressions. With changing lifestyles, youth often experiment in the process of discovering their sexuality and are more likely to have unprotected sexual intercourse

with a greater risk of contracting an STI/HIV, AIDS or having an un wanted pregnancy. Under these changing circumstances, the introduction of effective sex education programme for all levels of society particularly for school and out of school children in becoming increasingly relevant. An attempt has been made in this study to analyze these problems among adolescents school children to find suitable solutions.

AIMS & OBJECTIVES

a. To assess the level of sexual information and reproductive knowledge among adolescents.

b. To assess the attitude of adolescents regarding human sexuality and HIV/AIDS.

c. To study the opinion of adolescents regarding sex education and issues related human sexuality and HIV/AIDS.

d. To study the role of parents in imparting sex education.

e. To study the sexual behaviors of adolescents boys and girls.

f. To assess the self-esteem of adolescents boys and girls regarding human sexuality and HIV/AIDS.

SIGNIFICANCE OF THE STUDY

Many researchers have studied about attitude of teenagers towards sexuality but very little has been done with the attitude of teenagers towards sexuality and HIV/AIDS. Therefore the study would help to understand better the self - esteem of teenagers. This study also helps to understand better the knowledge and attitude about sexuality of the teenagers. At large this research would help a lot for the intervention, training, and education plan of teenagers.

SAMPLING TECHNIQUE

The sampling technique used was non - probability convenient type of sampling. This involved the selection of 20 students, 10 boys 10 girls from class XI and each school depending on their availability and willingness to respond to the questionnaire. Also the researcher had to select student from the science, commerce and arts sections only.

SIZE OF THE SAMPLE

The size of sample was 60 of which 30 were boys and 30 were girls.

RESEARCH DESIGN

The researcher adopted a descriptive design since, this study aims to describe the status of adolescents regarding their knowledge and attitude towards human sexuality and HIV/ AIDS, and also the self esteem of the students.

TOOLS OF DATA COLLECTION

The researcher used Focused Group Discussions and Self prepared Interview Schedule to collect personal data and details on knowledge and attitude of teenagers towards sexuality, HIV/AIDS. Most of them are open ended questions. The researcher has also used 5 point scaling questionaire to assess the level of self esteem, which has the dimension a of physical, social, economic and ego problems.

ANALYSIS AND INTERPRETATION

S. No.	ACTIVITIES OF THE STUDENTS	No. of Respondents (60)	PERCENTAGE
1	Study for board exams	26	43.3
2	Watch TV	52	86.7
3	Play out door games/sports	20	33.3
4	Go out with friends	30	50.0
5	Talk to parents sibling ect	25	41.7
6	Other (movies)	10	11.7
	OPINION REGARDING SEX EDUCATION	No. of Respondents (60)	PERCENTAGE
1	Sex education is needed	51	85.0
2	Sex education is not needed	9	15.0
	SOURCES OF SEX EDUCATION	No. of Respondents (60)	PERCENTAGE
1	Doctor health worker	16	26.7
2	Teacher/Counselor	7	11.7
3	Friends	1	25.0
4	Siblings	1	1.7
5	Parents	4	6.7
6	Grant parents	1	1.7
7	Television	6	10.0
8	Internet	0	0
9	Books & Magazine	0	0
10	Scientific Magazine	10	16.7

	OPINION ABOUT SEPARATE CLASSES FOR SEX EDUCATION	No. of Respondents (60)	PERCENTAGE
1	In favour of separate classes	28	46.7
2	Not in favour of separate classes	32	53.3

	KNOWLEDGE OF SEXUALITY TRANMITTED DISEASE	No. of Respondents (60)	PERCENTAGE
1	Heard of sexually transmitted Diseases	54	90
2	Not heard of sexually transmitted diseases	6	10

	CAUSATIVE ORGANISM OF HIV/AIDS	No. of Respondents (60)	PERCENTAGE
1	Virus	58	96.7
2	Bacteria	0	0
3	Don't know	2	3.3

	INFECTION DISEASES	No. of Respondents (60)	PERCENTAGE
1	Tuberculosis	31	51.7
2	Leprosy	11	18.3
3	Don't know	18	30.0

	DIAGNOSTIC TEST	No. of Respondents (60)	PERCENTAGE
1	Elisa test	10	16.7
2	Western blot test	16	26.7
3	Don'tknow	34	56.6
	KNOWLEDGE OF ORIGIN OF SPERMS	No. of Respondents (60)	PERCENTAGE
1	Testes	18	30
2	Scrotm	7	11.7
3	Don'tknow	35	58.3
	KNOWLEDGE OF FUSIONSPERM AND OVUMS	No. of Respondents (60)	PERCENTAGE
1	Ovulations	13	21.7
2	Fertilization	20	33.3
3	Don'tknow	27	45.0
	PHASE OF MENSTRUAL CYCLE	No. of Respondents (60)	PERCENTAGE
1	One week before menstruation	13	21.7
2	During menstruation	18	30.0
3	One week after menstruation	2	3.3
4	Don'tknow	27	45.0

	FREQUENCY OF MENSTRULA CYCLE	No. of Respondents (60)	PERCENTAGE
1	Once in a month	35	58.3
2	Once in 2 month	1	1.7
3	Twice a month	4	6.7
4	Don'tknow	20	33.3

	TERM FOR FIRST MENSTRUAL CYCLE	No. of Respondents (60)	PERCENTAGE
1	Menarche	14	23.3
2	Menopause	23	38.3
3	Don'tknow	23	38.3

	OPINION REGARDING SEMINAL DISCHARGE	No. of Respondents (60)	PERCENTAGE
1	Sing of adulthood/masclinity	3	5
2	Nature biological process	19	31.7
3	Sign of vigor/vitality	4	6.7
4	Due to exertion heat in the body	8	13.3
5	Contains sperms	4	6.7
6	Don'tknow	14	23.3

	CHANGE NEED IN BODY TO BECOME A MAN	No. of Respondents (60)	PERCENTAGE
1	By Age	2	3.33
2	Growth of secondary sexual characteristics like body hair, changing of voice etc.	25	41.66

3	Physical growth	5	8.33
4	Seminal discharge	2	3.33
5	Ability to reproduce	2	3.33.
6	To attain characteristics of men by observation	1	1.66
7	Don't know/no respondents	23	38.33
	CHANGE REQUIRED FOR GIRL TO BECOME A WOMEN	No. of Respondents (60)	PERCENTAGE
1	Attaining puberty, onset of Menarche	5 14	8.33 23.33
2	Growth of secondary sexual characteristics pubic hair,		
3	Developments of breasts change in body structure	6	10
4	Growth of secondary sexual	5	8.33
5	Characteristics and menarche	2	3.33
6	Mature in dody and mind by age and by nature Don't know/no respondents	28	46.66

S. No.	Age of First sexual intercourse	Male	Female	Total
1	14-19	13 (21.66%)	4(6.66%)	17(28.33%)
2	20-25	16(26.66%)	24 (40%)	40(66.66%)
3	26-31	1(1.66%)	3(5%)	3(5%)
	Total	30(50%)	30(50%)	60(50%)

t-VALUE SHOWING DIFFERENCE IN KNOWLEDGE OF HIV/AIDS BETWEEN MALE AND FEMALE

DETAILS	MEAN	STANDARD DEVIATION	CALCULATED T-VALUE	SIGNIFICANCE
MALE	16.3	3.5038	2.234	P<0.05 Singnificant
FEMALE	14	3.435		

t-VALUE SHOWING DIFFERENCE IN KNOWLEDGE OF HUMAN ANATOMY AND PHYSIOLOGY BETWEEN MALE AND FEMALE

MALE	17.866	8.826	1.950	P<0.05 Singnificant
FEMALE	15.266	6.0218		

t-VALUE SHOWING DIFFERENCE IN ATTITUDE SCORES FOR HIV/AIDS BETWEEN MALE AND FEMALE

MALE	26.6	6.765	1.973	P<0.05 Singnificant
FEMALE	30.6	7.4717		

t-VALUE SHOWING DIFFERENCE IN ATTITUDE SCORES IN HUMAN SEXUALITY BETWEEN MALE AND FEMALE

MALE	50.066	8.445	2.714	P<0.05 Singnificant
FEMALE	56.3	9.595		

ANOVA TEST SHOWING VARIANCE IN THE 3 SCHOOLS WITH REGARD TO KNOWLEDGE OF HIV/AIDS

SOURCE VARIENCE	SUM OF SQUARE	DF	MEAN SQUARE	F-RATIO	5% LIMIT (from the f-table)
Between samaples	30	(3-1)=2	30/2=15	15/113.982	3.15
Within samples	729	(60-3) = 57	797/59 =13.982	=1.072	Significant

ANOVA TEST SHOWING VARIANCE IN KNOWLEDGE OF HUMAN ANATOMY AND PHYSIOLOGY AMONG THE 3 SCHOOLS

Between samaples	1530	(3-1)=2	1530/2=765	765/43.4912	3.15
Within samples	2479	(60-3) = 57	2.479/57 =43.491	=17.589	Significant

RESULT OF ANOVA TEST FOR ATTITUDE REGARDING HIV/AIDS IN 3 SCHOOLS

Between samaples	240	(3-1_=2	240/2=120	120/52.438	3.15
Within samaples	2989	(60-3)=57	2989/57 =52.438	=2.28841	Significant

ANOVA TEST SHOWING DIFFERENCE IN ATTITUDE REGARDING HUMAN SEXUALITY AMONG THE 3 SCHOOLS

Between samaples	3270	(3-1_=2	1635	1635/54.789	3.15
Within samaples	3123	(60-3)=57	54.789	=29.841	Significant

t-VALUE SHOWING DIFFERENCE IN KNOWLEDGE OF HIV/AIDS BETWEEN MALE AND FEMALE

DETAILS	MEAN	STANDARD DEVIATION	CALCULATED	SIGNIFICANCE
MALE	15	13.07		P<0.05 Singni ficant
FEMALE	20.4	21.56	0.1947	

FINDINGS

The main findings are based on the analysis and interpretation of the above tabulated data and from the focused group discussion conducted are the followings. It is noticed that majority (61.7%) of them belong to the age group of 16 year and 21.7% belong to the age group of 17 year. 50% of the respondents' domicile was semi urban. 55% of the respondents are belonged to Nuclear families. Majority (78.3%) of the respondents belong to Hindu religion, while 11.7% are Christians and 6.7% are Muslim. Majority (65%) of the respondents stated that they always followed religious beliefs, traditional and moral laws. Majority (86.7%) of the respondents spent their time watching T.V. Majority (86.7%) of the respondents spent at least one hour with their parents. Majority (85%) of the respondents stated that they need sex education. Majority (73.3%) of the respondents said that sex education would be useful to protect from STD/AIDS. 51.7% of the respondents referred the initiation of sex education from the age of 14-17 year. 53.3% of the repondents are in favour of having separate classes for sex education. Majority (90%) of the respondents know about Sexually transmitted disesase. 56.6% of the respondents are not know about the blood test done to diagnose HIV/AIDS. Majority (96.7%) of the respondents stated that breast feeding by an HIV infected mother to child was highly risky. Majority (91.7%) of the respondents stated that there was a high risk for HIV transmission while

donating blood. Majority (91.7%) of the respondents stated that doctor using a syringe without proper sterilization posed a high risk of HIV transmission. Majority (88.3%) of the respondents know that the sperm was the male gamete. 58.3% of the respondents don't know the origin of sperms. 45% of the respondents don't know the infertile phase of the menstrual cycle. 36.7% of female respondents opined regarding menstruation which was Natural Biological process. 38.3% of the respondents strongly agreed that pre-marital sex should never be practiced. Majority (60%) of the respondents strongly agreed that companionship and affection were more important than sex in a relationship. It is found that 55% of the respondents strongly agreed that HIV positive mother should not be allowed to have children. It is found that 30% of the respondents is strongly disagreed that HIV positive individual also should be isolated from society.

SUGGESTIONS AND CONCLUSION

Suggestions and conclusions made on the basis of the main findings of this study.

This study acknowledges the felt need of sex education of the students. This indicates the need for providing unbiased, un-moralistic information to adolescents so that they are better informed as a result and better adjusted to their changing, physical, biological and emotional needs of growing up. Such education can either be school based and can be given by social workers, counselors, health workers or doctors. Mass media and peer led teaching could also be used as a medium for reaching adolescents. It is necessary that adolescent who are to be given this education should be involved at every stage of decision making. This study also identified certain areas to be specifically targeted during sex education. Scientific knowledge of STI, their symptoms and an understanding of the type of situations in which risk is high. Aware-

ness has to be given to their own responsibility in infecting other and understanding the emotional factors that lead to premarital sex and its consequences. The idea of considering masturbation as immoral or unhealthy needs to be corrected, otherwise adolescents are likely to carry the guilty for their life time. There is also a need to dispel fear about the use of razors, un-sterilized surgical needles by doctors and blood donation as in these modes, transmission of HIV is remote possibility. Adolescents also need to know about homo sexual sex as mode of HIV transmissions.

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